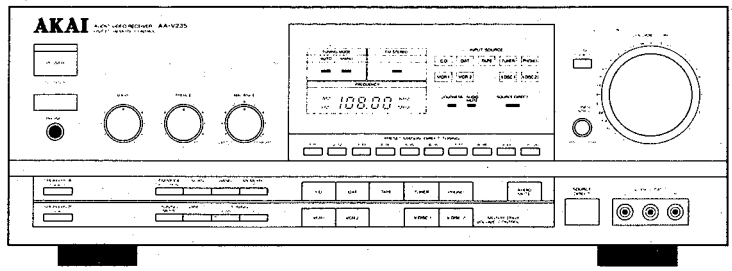
AKAI SERVICE MANUAL



AUDIO VIDEO RECEIVER

MODEL AA-V235

SPECIFICATIONS

Amplifier section

Power output (per channel)
FTC (20 Hz to 20 kHz) . 60 W (8 ohms, 0.05%)
Dynamic power output .... 80 W (8 ohms), 100 W (6 ohms), 125 W (4 ohms), 120 W (2 ohms)
Power bandwidth ..... 10 Hz to 60 kHz/0.3%
Total harmonic distortion . 0.03% (8 ohms, 1kHz)
Phono max. input level .... 135 mV (MM)
Frequency response ..... 5 Hz to 100 kHz (+0 dB, −4 dB)
Tone control
Treble ..... ±8 dB (10 kHz)
Bass ..... ±8 dB (100 Hz)
Input sensitivity/Impedance
Phono (MM) ..... 2.0 mV/47 k ohms
CD, Tape, etc ..... 150 mV/47 k ohms
V.Disc/VCR (Audio) ..... 150 mV/47 k ohms
V.Disc/VCR (Video) ..... 1 Vp-p/75 ohms
Output level/Impedance
Tape rec out ..... 150 mV/1 k ohms
VCR (Audio) ..... 150 mV/1 k ohms
Monitor/VCR (Vidoe) ... 1 Vp-p/75 ohms
Damping factor ..... 28.7 (8 ohms, 1 kHz)
Residual noise ..... 0.5 mV (8 ohms)
S/N
Phono (MM) ..... 70 dB
CD, Tape ..... 90 dB (Source direct)
Channel separation (IHF) . 60 dB (1 kHz)
Required speaker impedance
A or B ..... 8 ohms to 16 ohms
A and B ..... 16 ohms

Tuner section

FM Tuner

Tuning frequency range ... 87.5 MHz to 108.0 MHz
Usable sensitivity .....11.2 dBf
Quieting sensitivity
(IHF, S/N=50 dB) ..... 16.2 dBf (Mono)/ 37.2 dBf (Stereo)
Capture ratio ..... 1.5 dB
Selectivity (400 kHz) ..... 60 dB
Image rejection ..... 85 dB
IF rejection ..... 90 dB
Spurious rejection ..... 80 dB
AM suppression ..... 60 dB
S/N (IHF) ..... 75 dB (Mono)/65 dB (Stereo)
Harmonic distortion ..... 0.1 % (Mono)/0.3 % (Stereo)
Stereo separation (1 kHz) . 45 dB
Frequency response ..... 30 Hz to 15 kHz (±0.5 dB)

AM Tuner

Tuning frequency range ... 530 kHz to 1,610 kHz (For USA and Canada) 531kHz to 1620kHz (For Europe)
Usable sensitivity
(AM Loop antenna) ..... 300 µV/m
Selectivity ..... 25 dB
Image rejection ..... 45 dB
IF rejection ..... 35 dB
S/N ..... 40 dB
T.H.D ..... 1.0 %

Power requirement ..... 120 V,60 Hz for USA and Canada
220 V, 50Hz for Europe except UK
Dimensions ..... 425 (W) × 156 (H) × 368 (D)mm (16.7 × 6.1 × 14.5 inches)
Weight ..... 10.1 kg (22.2 lbs)

Standard accessories

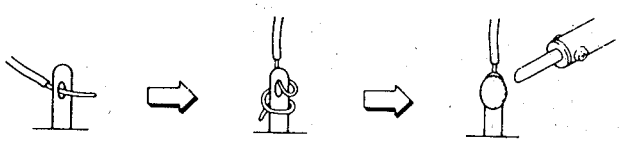
FM antenna	1
AM loop antenna	1
FM antenna plug	1
Remote control unit (RC−V235)	1
Batteries for remote control unit (UM−3)	2
Operator's manual	1

* For improvement purposes, specifications and design are subject to change without notice.

★SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts identified by the ⚠(*) symbol parts are critical for safety. Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation.
   These must also be replaced only with specified replacements.
   Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers (Insulating Barriers)
   4) Insulation sheets for transistors
   5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to determine that exposed parts are acceptably insulated from the supply circuit.
The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal-input/output connectors, etc.) and the earth ground through a resister of 1500 ohms paralleled with a 0.15 μF capacitor, under the unit's normal working conditions. The leakage-current should be less than 0.5 mA rms AC.
The resistance measurement should be done between accessible exposed metal parts and power cord plug prongs with the power switch (if included) "ON". The resistance should be more than 2.2 Mohms.

★INFORMATION

SYMBOLS FOR PRIMARY DESTINATION

Alphabet indicates the destination of the units as listed below.

Symbols	Principal Destinations
A	USA
B	UK
C	Canada
E	Europe (except UK)
J	Japan
S	Australia
V	W. Germany only
U	Universal Area
Y*	Custom version

I. CONTROL

1-1 FRONT PANEL

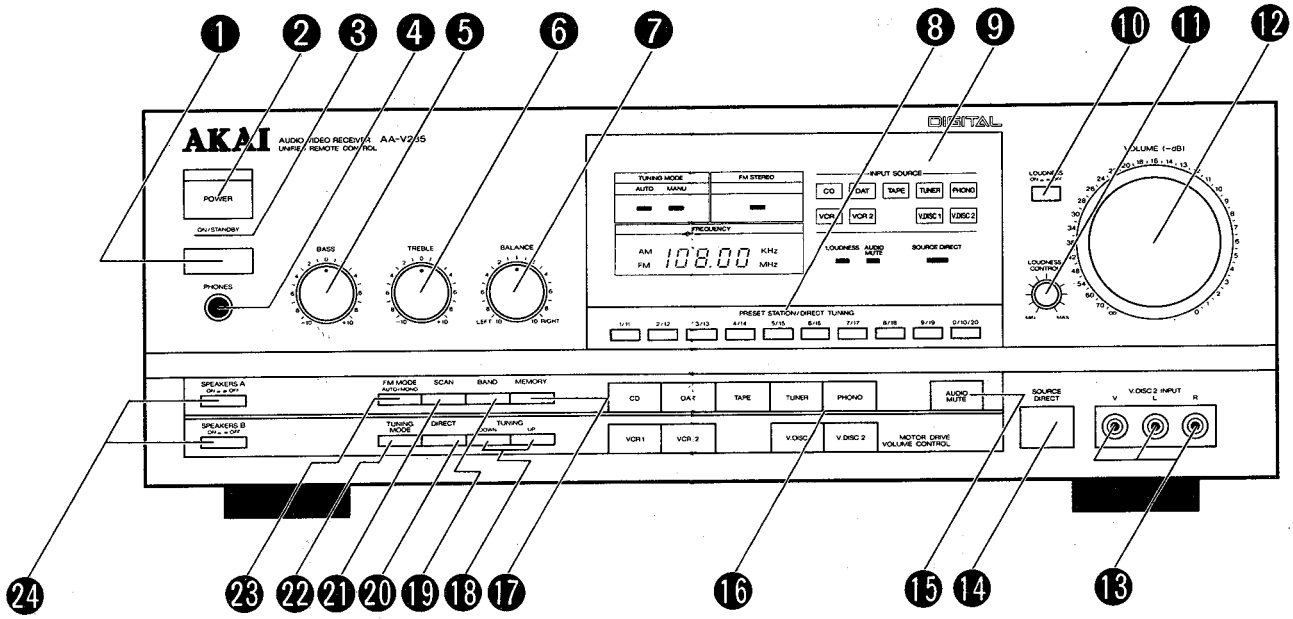


Fig. 1-1

❶ **Remote Sensor Window**
To receive the remote control signal from the RC-V235 provided remote control unit.
Keep away from strong light and direct sunlight as this may interfere with the remote control function.

❷ **POWER Button and Indicator**
To turn the power on and off.
The indicator will light when the power is on.

❸ **ON/STANDBY Indicator**
Tells you the power cord is connected to a household AC outlet.

❹ **PHONES Jack**
For connection of headphones.

❺ **BASS Tone Control**
To adjust the low note (bass) level. When set to 0, the control is ineffective.

❻ **TREBLE Tone Control**
To adjust the high note (treble) level. When set to 0, the control is ineffective.

❼ **BALANCE Control**
To adjust the left and right channel balance.
Normally set the control to 0.

❽ **PRESET STATION/DIRECT TUNING buttons**
To memorize and recall FM and AM stations and for direct tuning of stations.

❾ **FL (Fluorescent) Display and LED (Light Emitting Diode) Indicators**
Tell you what the receiver is doing.

❿ **LOUDNESS Switch (▂ ON/ ▁ OFF)**
To turn the loudness system on and off.

⓫ **LOUDNESS Control (MIN/MAX)**
To increase or decrease the loudness effect.

⓬ **VOLUME Control (—dB: minus decibel) and Indicator**
To adjust the volume level. The 0 dB (zero decibel) position is the maximum volume output of the receiver.
The indicator will light when the power is turned on.
The surround speaker level can be adjusted at the same time when the surround system is engaged.

⓭ **V.DISC 2 Input Jacks (L: Left/R: Right/V: Video)**
For connection of video equipment for playback purposes.

⓮ **SOURCE DIRECT Switch**
To select the playback operation mode. If you wish to use the BASS, TREBLE or BALANCE controls, set the switch to off.

⓯ **AUDIO MUTE Button**
To instantly reduce the playback volume by 20 dB (1/10) from the level that the VOLUME control is set at.

⓰ **Input Select Buttons (PHONO, TAPE, DAT, TUNER, CD, VCR 1, VCR 2, V.DISC 1, V.DISC 2)**
To select the audio or video source you wish to playback.

⓱ **MEMORY Button**
To store tuned in stations at PRESET STATION button.

⓲ **TUNING Control Button (UP/ DOWN)**
To tune in stations manually or automatically.

⓳ **BAND Button**
To select between the FM and AM band.

⓴ **DIRECT Button**
To tune in a stations directly.

㉑ **SCAN Button**
To start automatic preset station scanning.

㉒ **TUNING MODE Button**
To select between the automatic or manual tuning modes.

㉓ **FM MODE Button**
To select between the stereo and monaural mode during FM reception.

㉔ **SPEAKERS A/B Switch (▂ ON/ ▁ OFF)**
To select the speaker system.
For headphone listening, set both switches to ▁ . When using two pairs of speaker systems at the same time, set both switches to ▂ .

1-2 On the FL (Fluorescent) display and LED (Light Emittig Diode) Indicators

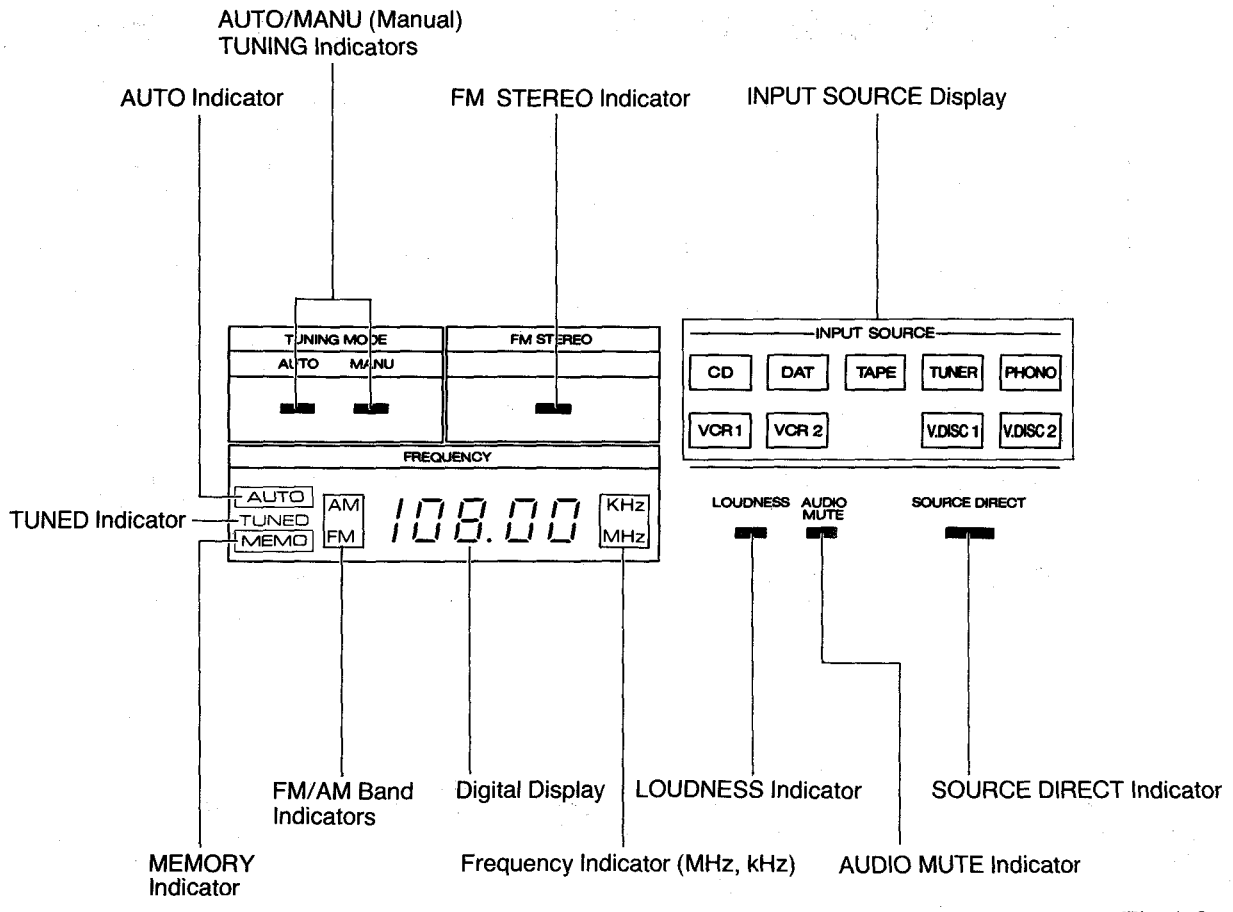


Fig. 1-2

1-3 REMOTE CONTROL UNIT

The remote control can be used to conveniently control all of the receiver's functions as well as basic control of Akai video cassette recorders and Mitsubishi TVs.

Transmitting window

POWER AUDIO Button
To turn the power of the receiver on and off.

POWER VIDEO Button
To turn the power of an Akai video cassette recorder on and off.

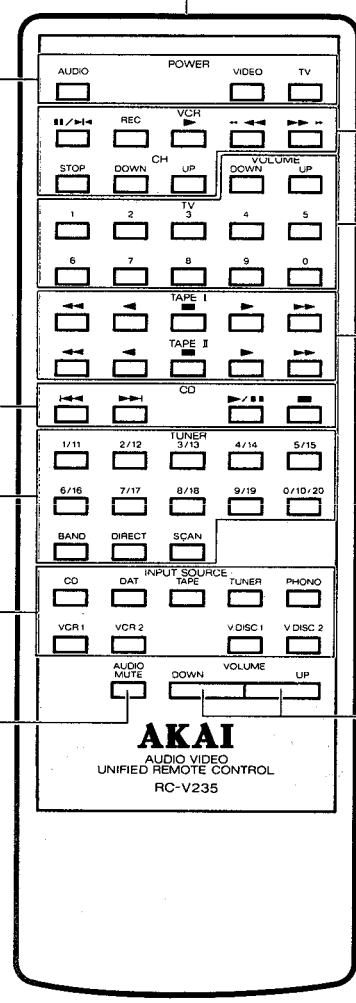
POWER TV Button
To turn the power of a Mitsubishi TV on and off.

CD Player Control Buttons
For control of an Akai CD player.

Tuner Control Buttons
For control of the receiver's tuner.

INPUT SOURCE Select Buttons
To select the audio or video source.

AUDIO MUTE Button
To turn the audio mute system on and off.



VCR (Video Cassette Recorder) Control Buttons
For control of an Akai Video cassette recorder.

TV Control Buttons
For control of a Mitsubishi TVs.

Tape Deck Control Buttons
For control of an Akai cassette deck.

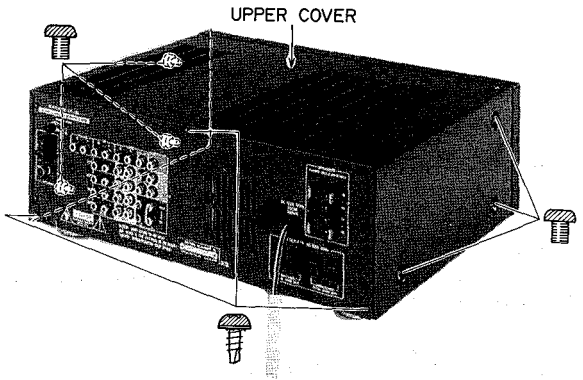
VOLUME Control Buttons (UP/DOWN)
To adjust the playback volume.

Fig. 1-3

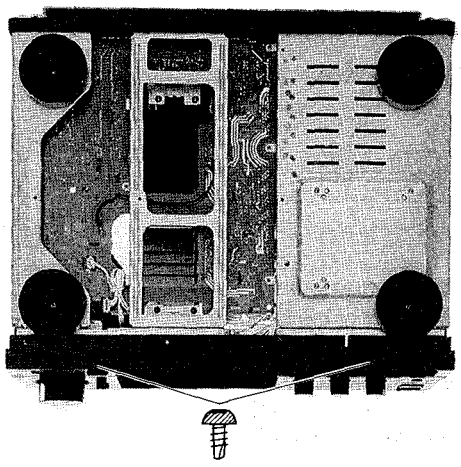
II. DISASSEMBLY

In case of trouble, etc, necessitating dismantling in the order shown in the photographs.
Reassemble in reverse order.

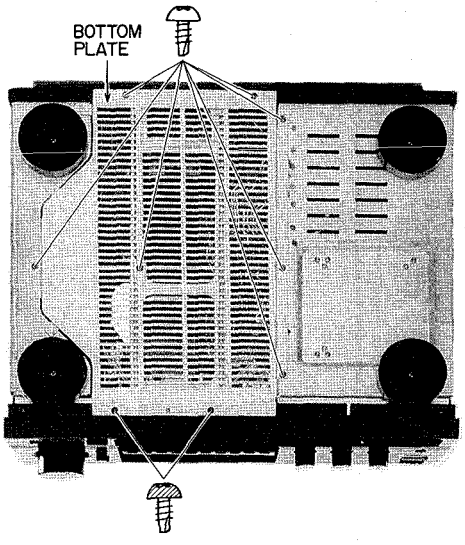
1. Removal of UPPER COVER



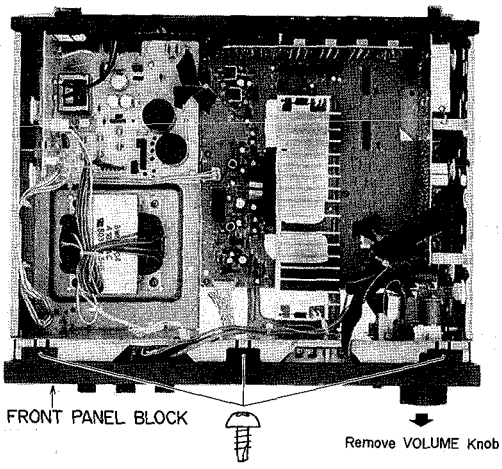
3. Removal of FRONT PANEL BLOCK



2. Removal of BOTTOM PLATE



4.



III. PRINCIPAL PARTS LOCATION

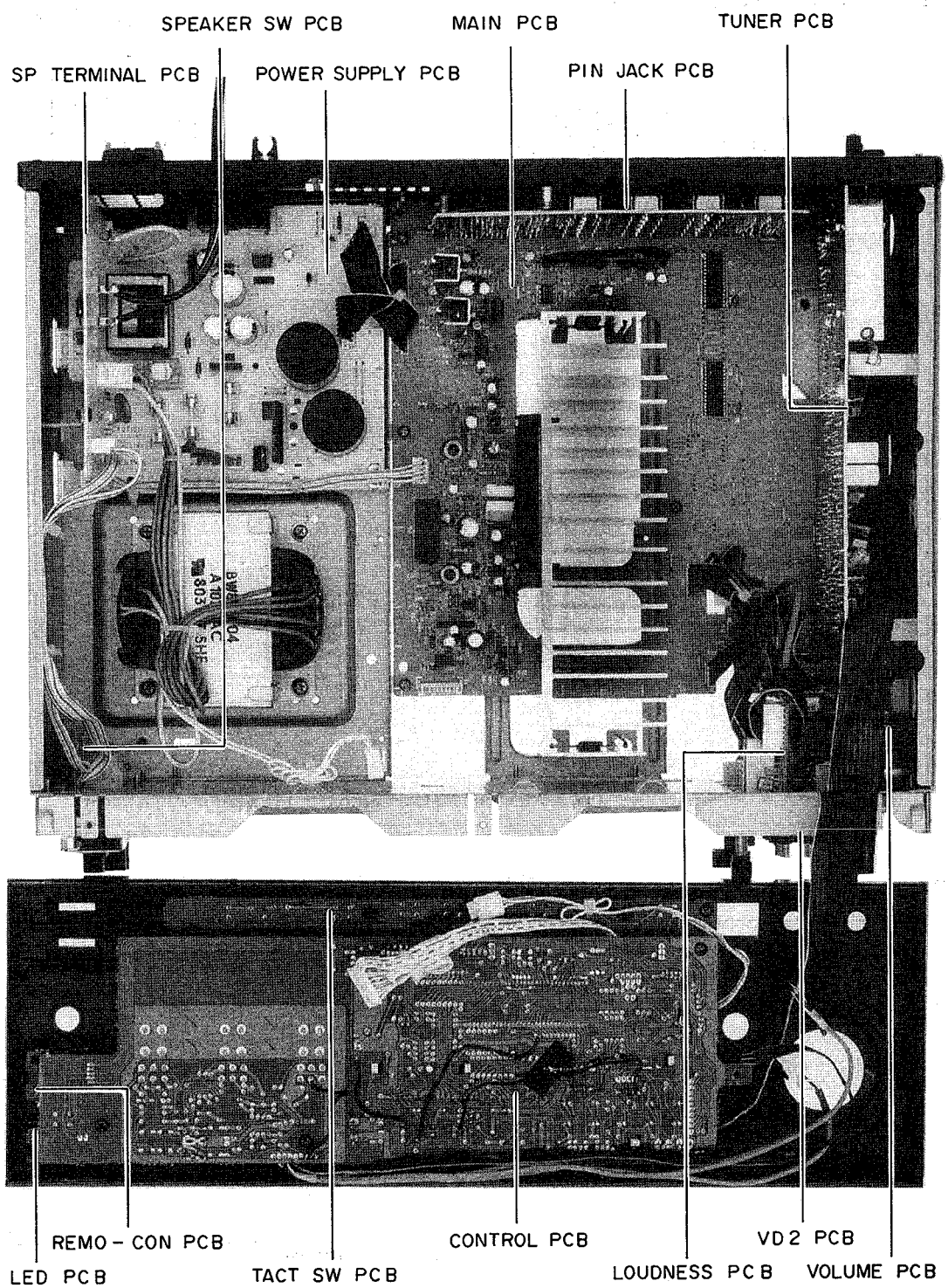


Fig. 3-1

IV. ELECTRIC ADJUSTMENT

4-1. INSTRUMENT CONNECTIONS

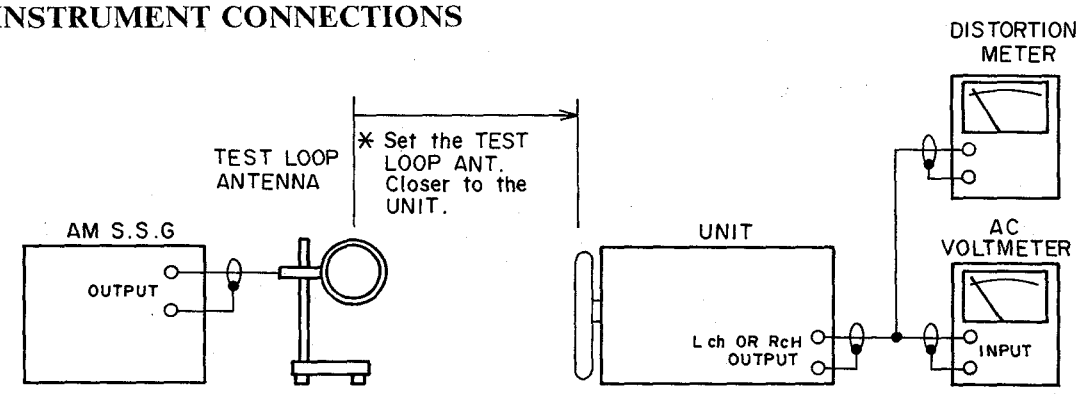


Fig. 4-1 Instrument Connections for AM Section Adjustment

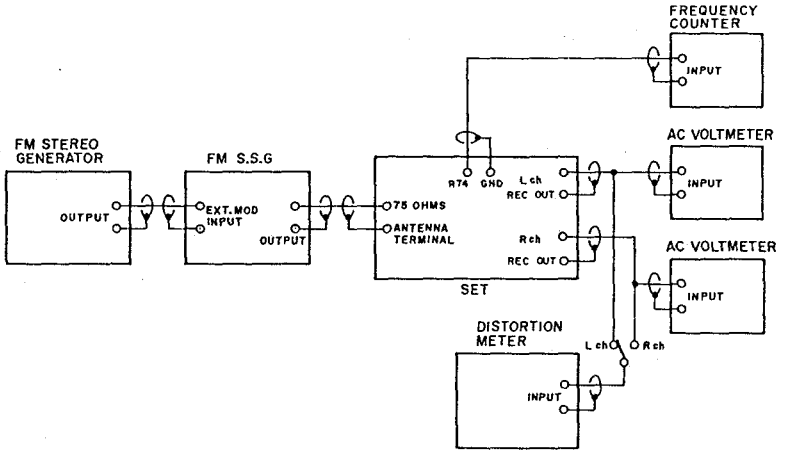


Fig. 4-2 Instrument Connection for FM Section Adjustment

4-2. HOW TO CALL THE PRESET TUNING FREQUENCY FOR THE ADJUSTMENT

Short the circuit momentalrily two Jumper wires JW6 and JW7 on the TUNER PCB as shown Fig. 4-3, then Select required tuning frequency by pushing one of the PRESET STATION button on the FRONT PANELA.

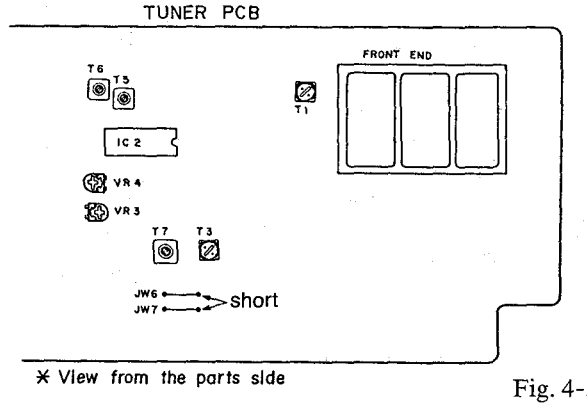


Fig. 4-3

*The internal tuning frequency preset memory is Sert as below.

PRESET STATION	1 ch	2 ch	3 ch	4 ch	5 ch	6 ch	7 ch	8 ch	9 ch	10 ch
A, C model	FM 88.00MHz	FM 90.00MHz	FM 98.00MHz	FM 100.00MHz	FM 106.00MHz	FM 108.00MHz	FM 95.70MHz	FM 107.70MHz	AM 530KHz	AM 600KHz
E model	FM 88.00MHz	FM 90.00MHz	FM 98.00MHz	FM 100.00MHz	FM 106.00MHz	FM 108.00MHz	FM 95.75MHz	FM 107.75MHz	AM 531KHz	AM 603KHz

PRESET STATION	11 ch	12 ch	13 ch	14 ch	15 ch	16 ch	17 ch	18 ch	19 ch	20 ch
A, C model	AM 1000KHz	AM 1400KHz	AM 800KHz	AM 1300KHz	AM 1610KHz	AM 1190KHz	FM 92.00MHz	FM 94.00MHz	FM 96.00MHz	FM 102.00MHz
E model	AM 999KHz	AM 1404KHz	AM 801KHz	AM 1305KHz	AM 1602KHz	AM 1197KHz	FM 89.30MHz	FM 90.60MHz	FM 90.90MHz	FM 96.50MHz

5-3. TUNER ADJUSTMENT

NOTES:
1. Set SSG to 75kHz deviation, 1kHz of each.
2. Confirm that the sensitivity margin between low and high range sensitivities are within 6dBμ, otherwise readjust low and high range sensitivity.
3. Tunes only noise without interference from broadcasting. in step 3 (CENTER VOLTAGE).

STEP	ADJUSTMENT
1.	SSG Freq./Att
2.	Tuning freq.
3.	Test point, Ajustment part
4.	Result. Remarks

→ Adjustment point
⇢ Test point

FM

4	DISTORTION (MONO)
1.	98MHz (MONO)/60dBμ
2.	98MHz (MONO)
3.	REC OUT T6
4.	✻Ajust T6 so that the reading on the distortion meter is minimum (Less than 0.3%).

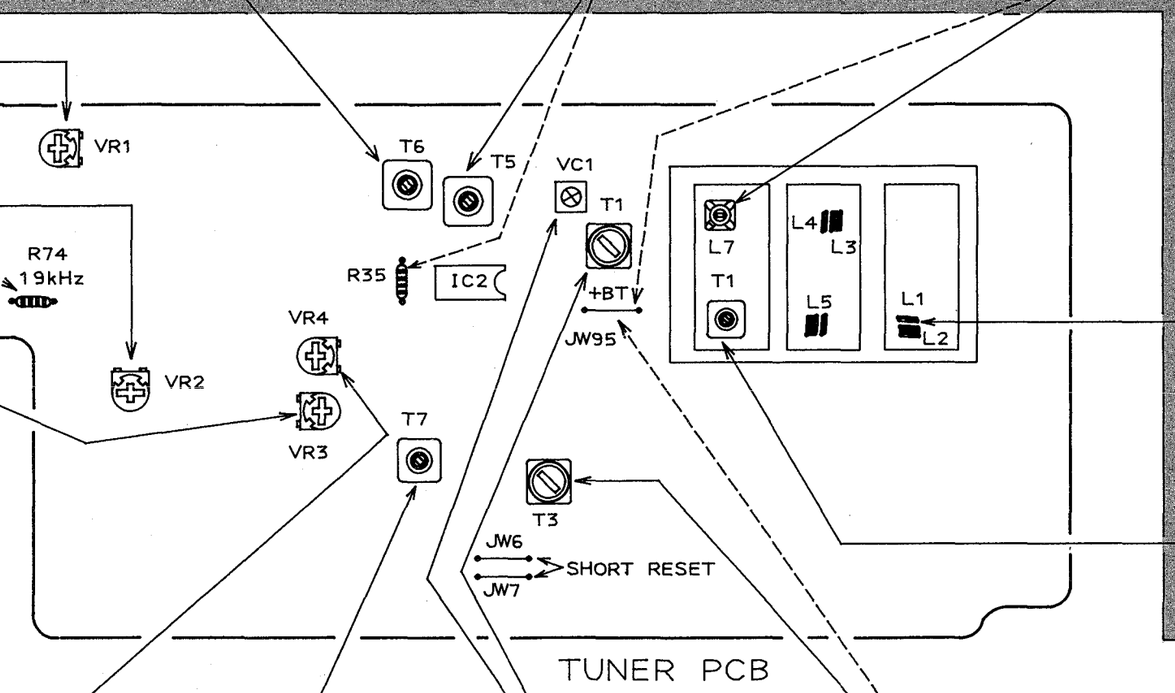
3	CENTER VOLTAGE
1.	———
2.	See NOTE 3.
3.	Both end of R35, T5
4.	•Connect a digital DC voltmeter between both end of R35. ✻Ajust T5 so that the reading on the DC digital DC voltmeter is DC 0±0.05V.

1	TUNING VOLTAGE
1.	———
2.	87.5MHz
3.	JW95(+BT), L7
4.	•Connect a digital DC voltmeter between JW95(+BT) and GND. ✻DC 3.50±0.05V

7	CHANNEL SEPARATION
1.	98MHz (STEREO only) "L" or "R" CH / 60dbμ
2.	98MHz (STEREO)
3.	REC OUT, VR1
4.	✻Ajust VR1 so that the level deference between "L" and "R" CH is more than 38dB.

5	MPX FREE RUN FREQUENCY
1.	98Mhz/60dBμ
2.	98MHz (MONO)
3.	R74 (Marking side), VR2
4.	•Connect a frequency counter between R74(Marking side) and GND. ✻19,000±50Hz

8	FM SIGNAL INDICATOR SENSITIVITY
1.	98MHz/35dBμ
2.	98MHz
3.	SIGNAL INDICATOR on the FRONT PANEL VR3.
4.	✻Ajust VR3 so that the 5th segment on the signal indicator is light.



2	FM SENSITIVITY
1.	88MHz, 98MHz, 108MHz/20~10dBμ
2.	88MHz, 98MHz, 108MHz
3.	REC OUT, L1 to L5
4.	✻Ajust L1 to L5 alternatry so that the reading on the distortion meter is minimum.

6	DISTORTION (STEREO)
1.	98MHz (STEREO)/60dBμ
2.	98MHz (STEREO)
3.	REC OUT, T1 (FRONT END)
4.	✻Ajust T1 (FRONT END) so that the reading on the distortion meter is minimum (Less than 0.8%).

AM

4	AM SIGNAL INDICATOR SENSITIVITY
1.	1000kHz ‹999kHz›/65dBμ
2.	1000kHz ‹999kHz›
3.	SIGNAL INDICATOR on the FRONT FRONT PANEL. VR4
4.	✻Adjust VR4 so that the 3rd segment on the signal indicator is light.

3	IF
1.	1000kHz ‹999kHz›/74dBμ
2.	1000kHz ‹999kHz›
3.	REC OUT, T7
4.	✻Minimum distortion

2	AM SENSITIVITY
1.	600kHz ‹603kHz› (LOW), 1400kHz ‹1404kHz› (HIGH)/ 70dBμ
2	600kHz(LOW) 1400kHz(HIGH)
3.	REC OUT, T1(LOW) VC1(HIGH)
4.	✻Minimum distortion.

NOTE
For best result, repeat adjustment at low range and high range two or three times.

1	TUNING VOLTAGE
1.	———
2.	1400kHz ‹1404kHz›
3.	JW95 (2BT), T3
4.	•Connect a DC digital voltmeter between JW95(+BT) and GND. ✻DC 6.7V

NOTE:
1. SEet SSG to 30%, 1kHz of each.
2. Confirm that the sensitivity margin between low and high range sensitivities are within 6dBμ, otherwise readjust low and high range sensitivity.
3. Frequencies indicated in ‹ › are model for 9kHz step (E model)

VI. PARTS LIST

ATTENTION

1. When placing an order for parts, be sure to list Part No., Model No. and the description of eachpart. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.
2. Please make sure that Part No. is correct when ordering. If not, a part different from the one you ordered may be delivered.
3. Since the parts shown in Parts List of Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the Parts List.

a) Mechanism Block

2. HEAD BASE BLOCK

REF. NO.	PART NO.	DESCRIPTION
1	BH-T2023A320A	HEAD BASE BLOCK
2	HP-H2206A010A	HEAD R/P PR4-8FU C
3	ZS-477876	PAN20×03STL CMT
4	ZS-536488	BID20×08STL CMT
5	ZG-402895	SP CS ANGLE ADJUST

SP (Service Parts) Classification

This number corresponds with the individual parts index number in that figure.

b) PC Board

6. MAIN PC BOARD

REF. NO.	PART NO.	DESCRIPTION
IC1	EI-324536	IC HD14049BP
IC2	EI-336801	IC MB8841-564M
C1A	EC-338399	C MMY V 223M 250AC [U,E,B,S]
C1B	EC-350949	C MMY V 223M 250DC [J]
C1C	EC-338397	C MMY V 223M 125AC [C,A]
X1	EI-318384	OSC X'TAL NC-18C

Symbols for primary destination

[A] : AAL (U.S.A) [S] : SAA (Australia)
[B] : BEAB (England) [U] : U/T (Universa
[C] : CSA (Canada) Area)
[E] : CEE (Europe) [V] : VDE (W. Germany)
[J] : JPN (Janan) [Y] : Custom Version

SP (Service Parts) Classification

These reference symbols correspond with component symbols in the Schematic Diagrams.

The available PC Board Blocks are listed separately.

5. When Part No. is known, Parts Index at end of Parts List can be used to locate where that part is shown in Parts List by its Reference No.listed at right of Part No.

WARNING

⚠(✻) INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

AVERTISSEMENT

⚠(✻) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉDE L'APPAREIL, NE REMPLACER QUE DES PIÉCES RECOMMANDEES PAR LÉ FABRICANT.

1. RECOMMENDED SPARE PARTS

We suggest you to stock the following Recommended Spare Part items listed below since they can cover most of the routine service.

Ref. No.	Part No.	Description
1	✻BT-384281J	TRANS POW A1028S-CA [C,A]
2	✻BT-387992J	TRANS POW A1028S-E [E]
3	✻BT-384247J	TRANS POW A1029-AC [C,A]
4	✻BT-387993J	TRANS POW A1029-E [E]
5	ED-376111	D LED SE303AC INFRARED
6	ED-384268J	D LED SLP-175D-50 RED [ON/STANDBY]
7	ED-361885	D LED SLP-384C-51 GREEN [POWER]
8	ED-367974	D LED SLV-31PC3 GREEN
9	ED-385160J	D LED SLV-31VC3F RED
10	✻ED-330319	D SILICON DBA10B 100/1.0A
11	✻ED-349662	D SILICON DS135E-FA6 F10 100/1
12	ED-348990	D SILICON H DS446
13	ED-301911	D SILICON H DS448
14	ED-307572	D SILICON H 1SS131
15	ED-624903	D SILICON H 1S2473
16	✻ED-384278J	D SILICON RBV602 200/6.0A
17	ED-717990	D SILICON 1SS181
18	ED-349460-A	D VARACTOR SVC321SPA ABCD DBL
19	ED-349448	D VARACTOR 1SV147
20	ED-310387	D ZENER H HZ12 B2
21	ED-330218	D ZENER H HZ15-2L
22	ED-346567	D ZENER H HZ16-1L
23	ED-310607	D ZENER H HZ18 2
24	ED-346594	D ZENER H HZ3 B3
25	ED-346627	D ZENER H HZ33 2
26	ED-305704	D ZENER H HZ4 B2
27	ED-338333	D ZENER H HZ5 B2
28	ED-306316	D ZENER H HZ5 C2
29	ED-337265	D ZENER H HZ6 C2
30	ED-318859	D ZENER H HZ9 C2
31	✻EF-601964	FUSE SEMKO T 250V 1.60A [E]
32	✻EF-668474	FUSE SEMKO T 250V 400MA [E]
33	✻EF-306957	FUSE TSC 125V 4.00A [C,A]
34	✻EF-309391	FUSE TSC 125V 800MA [C,A]
35	EH-344434	FILTER CE BFU450C4N 0.450MHZ
36	EH-355568	FILTER CE SFE10.7MS2G-A
37	EI-384264J	IC A1027 1271
38	EI-353421	IC BA6229
39	EI-361624	IC LA1265
40	EI-343417	IC LB1294
41	EI-384285J	IC LC7821
42	EI-361622	IC LM7001
43	✻EI-384279J	IC MC7806CT
44	EI-370973	IC M4066BP
45	EI-346071	IC M5218L-21
46	EI-349719	IC M5218P
47	EI-344764	IC M5218P-21
48	✻EI-384381J	IC STK4201V
49	EI-351849	IC UPC1235C
50	EI-354080	IC UPC1237H
51	EI-726144J	IC UPD6124G-536
52	EI-376113	OSC CE CSB455EB
53	EI-388110J	OSC CE CST4.19MG 4.194MHZ
54	EI-344422	OSC X'TAL HC-18/U 7.200MHZ
55	✻EJ-384277J	SOCKET OUTLET M7037 2P
56	✻EJ-384283J	SOCKET OUTLET M7037-B 2X2P [C,A]
57	EJ-359031	TERMINAL LEVER YKD31-0215 P 2P [ANTENNA TERMINAL]
58	EJ-349061	TERMINAL PUSH YKD21-0025 P 8P [SPEAKER TERMINAL]
59	EM-384374J	IND FL 8-BT-29ZAK CHARACTER
60	✻EQ-347611	RELAY POW G2R-1112PFD-V 1NO 12V
61	EQ-382352J	RELAY POW G5R-2282P 2NO 24V
62	✻ER-318647	R FUSE H S10 ERD2FC 1/4W 4R7J
63	✻ER-356573	R SD ANTI-STATIC 1/2W 225K [C,A]
64	ES-384302J	SW PUSH ESB-62 06-02 [LOUDNESS SW]
65	ES-383041J	SW PUSH ESB-62931 2-04-02N [SOURCE DIRECT SW]
66	ES-384346J	SW PUSH SPUL23 04-02 2THRPW N [SPEAKER SELECTOR SW]
67	ES-349474	SW TACT SKHHAM004A [1/11]
68	ES-359172	SW TACT SKHHAP [POWER]
69	ET-381637J1	DETECTOR GP1U521X
70	ET-363953	TR DTA114TS
71	ET-354415	TR DTA144ES
72	ET-360399	TR DTC114TS
73	ET-370310	TR DTC144TS
74	ET-354094	TR DTC144WS
75	ET-349449	TR FET 2SK161 O,Y
76	ET-337759	TR FET 2SK246 GR
77	ET-308472	TR 2SA1115 E,F,G F05
78	ET-353899	TR 2SA1317 S,T,U
79	ET-305463	TR 2SA970 GR,BL
80	✻ET-366365	TR 2SB1185 E,F
81	✻ET-373210	TR 2SB1187 E,F
82	ET-307195	TR 2SC2240 GR,BL
83	ET-338410	TR 2SC2878 A,B
84	ET-336869	TR 2SC2999 C,D
85	ET-360067	TR 2SC3330 T,U F05
86	ET-349081	TR 2SC3383 S,T
87	ET-357878	TR 2SC3383 S2,T,U
88	ET-356437	TR 2SC930 D2,E,F
89	ET-328265	TR 2SC930 F
90	✻ET-366581	TR 2SD1762 E,F
91	ET-721755J	TR 2SD596
92	EV-384319J	VR ROTARY RK1631210 A104X2 [LOUDNESS CONTROL]
93	EV-384316J	VR ROTARY RK1631220 B103X2 [BASS]
94	EV-384317J	VR ROTARY RK1631220 M254N254 [BALANCE]
95	EV-384328J	VR SPL RK16Y12MA B104X2 [MAIN VOLUME]
96	✻EZ-358816	BATTERY LITHIUM BR2032-1HF

2. P.C BOARD BLOCK

Ref. No.	Part No.	Description
1	BA-A1029C020A	PC(#) MAIN BLK AA-V235
2A	BA-A1027C030C	PC(#) TUNER BLK AA-V235(C) [C,A]
2B	BA-A1027A030D	PC(#) TUNER BLK AA-V235(E) [E]
3	BA-F0131A010A	PC FRONTENDBLKFE31(U,C,A,S,E,B
4A	BA-A1029C040A	PC(#) CONTROL BLK AA-V235(C) [C,A]
4B	BA-A1029A040B	PC(#) CONTROL BLK AA-V235(E) [E]

PC (#) CONTROL BLK CONSISTS OF FOLLOWING P.C BOARD.
- * CONTROL P.C BOARD
- * TACT SW P.C BOARD
- * SPEAKER SW P.C BOARD
- * REMOCOM P.C BOARD
- * LED (A) P.C BOARD

PC (#) MAIN BLK CONSISTS OF FOLLOWING P.C BOARD.
- * MAIN P.C BOARD
- * LOUDNESS P.C BOARD
- * MAIN VOLUME P.C BOARD
- * VD2 P.C BOARD

PC (#) TUNER BLK CONSISTS OF FOLLOWING P.C BOARD.
- * TUNER P.C BOARD
- * PIN JACK P.C BOARD
- * SPEAKER TERMINAL (A) P.C BOARD
- * POWER SUPPLY P.C BOARD

3. MAIN P.C BOARD

Ref. No.	Part No.	Description
C21	EC-367048	C EC V CUT SME 101M 63.0DC
C28	EC-334005	C EC V CUT NP SM 331M 10DC
D1	ED-338333	D ZENER H HZ5 B2
D2	ED-348990	D SILICON H DS446
D3	ED-348990	D SILICON H DS446
D4	ED-301911	D SILICON H DS448
D5	ED-348990	D SILICON H DS446
D6	ED-346627	D ZENER H HZ33 2
D7	ED-346567	D ZENER H HZ16-1L
D8	ED-330218	D ZENER H HZ15-2L
D9	ED-346567	D ZENER H HZ16-1L
D10	ED-310387	D ZENER H HZ12 B2
D11	ED-337265	D ZENER H HZ6 C2
D12	ED-310607	D ZENER H HZ18 2
D13	ED-310387	D ZENER H HZ12 B2
D14	ED-348990	D SILICON H DS446
D15	ED-307572	D SILICON H 1SS131
D16	ED-307572	D SILICON H 1SS131
D17	ED-307572	D SILICON H 1SS131
D18	ED-307572	D SILICON H 1SS131
D19	ED-307572	D SILICON H 1SS131
D20	ED-307572	D SILICON H 1SS131
D21	ED-346594	D ZENER H HZ3 B3
FR1	*ER-318647	R FUSE H S10 ERD2FC 1/4W 4R7J
FR2	*ER-318647	R FUSE H S10 ERD2FC 1/4W 4R7J
FR3	*ER-318647	R FUSE H S10 ERD2FC 1/4W 4R7J
FR4	*ER-318647	R FUSE H S10 ERD2FC 1/4W 4R7J
FR5	*ER-318647	R FUSE H S10 ERD2FC 1/4W 4R7J
FR6	*ER-318647	R FUSE H S10 ERD2FC 1/4W 4R7J
IC1	EI-384285J	IC LC7821
IC2	EI-384285J	IC LC7821
IC3	EI-346071	IC M5218L-21
IC4	EI-346071	IC M5218L-21
IC5	EI-349719	IC M5218P
IC8	EI-353421	IC BA6229
IC9	*EI-384381J	IC STK4201V
IC10	EI-354080	IC UPC1237H
J3	SP-384291J	SOCKET 10N-AQ 10P
J5	SP-384291J	SOCKET 10N-AQ 10P
L1	EO-337880	COIL FIX 2 202AK-018 2R2K
RL1	EQ-382352J	RELAY POW G5R-2282P 2NO 24V
R28	ER-322787	R CB H S10 FS RDS 1/4W 100J
R35	ER-385159J	R CB H S12 FS RDS 1/2W 472J
R36	ER-322591	R CB H S10 FS RDS 1/4W 101J
R37	ER-322591	R CB H S10 FS RDS 1/4W 101J
R38	ER-333598	R CB H S15 FS RDS 1/2W 102J
R39	ER-333598	R CB H S15 FS RDS 1/2W 102J
R40	ER-345466	R CT W F09 PLATE 5W R22K
R45	ER-387974J	R OMF H S12 FS 1W 4R7J
R46	ER-387974J	R OMF H S12 FS 1W 4R7J
R53	ER-384297J	R CB H S12 FS RDS 1/2W 103J
R55	ER-384299J	R CB H S12 FS RDS 1/2W 391J
R59	ER-382940J	R OMF H S10 FS 1/2W 182J
R61	ER-382940J	R OMF H S10 FS 1/2W 182J
R62	ER-382940J	R OMF H S10 FS 1/2W 182J
R64	ER-382940J	R OMF H S10 FS 1/2W 182J
R68	ER-382934J	R OMF H S15 FS 2W 121J
R70	ER-382941J	R OMF H S10 FS 1/2W 392J
TR1	ET-307195	TR 2SC2240 GR,BL
TR2	ET-305463	TR 2SA970 GR,BL
TR3	*ET-366581	TR 2SD1762 E,F
TR4	*ET-366581	TR 2SD1762 E,F
TR5	*ET-366581	TR 2SD1762 E,F
TR6	*ET-366365	TR 2SB1185 E,F
TR7	*ET-366581	TR 2SD1762 E,F
TR8	*ET-373210	TR 2SB1187 E,F
TR9	*ET-373210	TR 2SB1187 E,F
TR10	ET-308472	TR 2SA1115 E,F,G F05
TR11	ET-308472	TR 2SA1115 E,F,G F05

4. LOUDNESS P.C BOARD

Ref. No.	Part No.	Description
IC101	EI-349719	IC M5218P
R107	ER-322591	R CB H S10 FS RDS 1/4W 101J
R108	ER-322591	R CB H S10 FS RDS 1/4W 101J
SW101	ES-383041J	SW PUSH ESB-62931 2-04-02N [SOURCE DIRECT SW]
SW102	ES-384302J	SW PUSH ESB-62 06-02 [LOUDNESS SW]
TR101	ET-338410	TR 2SC2878 A,B
VR101	EV-384319J	VR ROTARY RK1631210 A104X2 [LOUDNESS CONTROL]

5. MAIN VOLUME P.C BOARD

Ref. No.	Part No.	Description
VR201	EV-384328J	VR SPL RK16Y12MA B104X2 [MAIN VOLUME]

6. VD2 P.C BOARD

Ref. No.	Part No.	Description
J301	EJ-384303J	PIN J JPJ0872-01-111 GP 3P [VD2]
F1A	*EF-306957	FUSE TSC 125V 4.00A [C,A]
F1B	*EF-601964	FUSE SEMKO T 250V 1.60A [E]

7. TUNER P.C BOARD

Ref. No.	Part No.	Description
D1	ED-306316	D ZENER H HZ5 C2
D2	ED-307572	D SILICON H 1SS131
D3	ED-318859	D ZENER H HZ9 C2
D4	ED-349460-A	D VARACTOR SVC321SPA ABCD DBL
D5	ED-349460-A	D VARACTOR SVC321SPA ABCD DBL
D8	ED-307572	D SILICON H 1SS131
D10	ED-307572	D SILICON H 1SS131
D11	ED-307572	D SILICON H 1SS131
D12	ED-307572	D SILICON H 1SS131
D13	ED-307572	D SILICON H 1SS131
FL1	EH-355568	FILTER CE SFE10.7MS2G-A
FL2	EH-355568	FILTER CE SFE10.7MS2G-A
FL3	EH-344434	FILTER CE BFU450C4N 0.450MHZ
IC1	EI-361622	IC LM7001
IC2	EI-361624	IC LA1265
IC3	EI-351849	IC UPC1235C
L1	EO-366394	COIL FIX 1 TL-8 183J
L2	EO-366394	COIL FIX 1 TL-8 183J
R10	ER-355633	R OMF H S15 FS 1W 331J
R25	ER-306805	R CB H S15 FS RDS 1/2W 101J
R31	ER-327710	R CB H S10 FS RDS 1/4W 151J
R35	ER-333379	R CB H S10 FS RDS 1/4W 183J
R59	ER-327710	R CB H S10 FS RDS 1/4W 151J
TM1	EJ-359031	TERMINAL LEVER YKD31-0215 P 2P [ANTENNA TERMINAL]
TR1	ET-337759	TR FET 2SK246 GR
TR2	ET-349081	TR 2SC3383 S,T
TR3	ET-353899	TR 2SA1317 S,T,U
TR4	ET-353899	TR 2SA1317 S,T,U
TR10	ET-356437	TR 2SC930 D2,E,F
TR13	ET-349081	TR 2SC3383 S,T
TR14	ET-349081	TR 2SC3383 S,T
TR15	ET-354094	TR DTC144WS
TR16	ET-357878	TR 2SC3383 S2,T,U
TR17	ET-357878	TR 2SC3383 S2,T,U
TR18	ET-353899	TR 2SA1317 S,T,U
TR19	ET-360067	TR 2SC3330 T,U F05
T1	EO-337598	COIL VARI 2 25A-1353-01
T3	EO-363279	COIL OSC 2 A7NRS-9857X 150.0UH
T5	EO-363291	COIL DET 2 78-1128-01
T6	EO-361630	COIL DET 2 78-1126-02
T7	EO-353176	COIL IFT PEGK0008B-01 455.0KHZ
T7A	EH-344435	FILTER CE SFU450B9 0.450MHZ
VC1	EC-359065	C S-FIX H CTC-6U-020 4.3-20
VR1	EV-361673	R S-FIX H RH0615C 0.10W 334
VR2	EV-356576	R S-FIX H RH0615C 0.10W 472
VR3	EV-358829	R S-FIX H RH0615C 0.10W 223
VR4	EV-358829	R S-FIX H RH0615C 0.10W 223
X1	EI-344422	OSC X'TAL HC-18/U 7.200MHZ

8. PIN JACK P.C BOARD

Ref. No.	Part No.	Description
IC101	EI-344764	IC M5218P-21
IC102	EI-370973	IC M4066BP
IC103	EI-370973	IC M4066BP
J101	EJ-384270J	PIN J T6227-AACB 2P [PHONO]
J102	EJ-368244	PIN J T6087 6P [CD,VCR PLAY]
J103	EJ-382362J	PIN J T6027-AABB 4P [DAT,TAPE PLAY]
J104	EJ-368244	PIN J T6087 6P [V.DISC,VCR REC]
J105	EJ-382362J	PIN J T6027-AABB 4P [DAT,TAPE REC]
J106	EJ-384271J	PIN J T6087-AADB 6P [MONITOR OUT]
J107	EJ-382362J	PIN J T6027-AABB 4P [PROCESSOR]
R109	ER-327710	R CB H S10 FS RDS 1/4W 151J
R110	ER-327710	R CB H S10 FS RDS 1/4W 151J
TR101	ET-353899	TR 2SA1317 S,T,U
TR102	ET-353899	TR 2SA1317 S,T,U
TR103	ET-353899	TR 2SA1317 S,T,U
TR105	ET-370310	TR DTC144TS
TR106	ET-370310	TR DTC144TS

9. SPEAKER TERMINAL (A) P.C BOARD

Ref. No.	Part No.	Description
TM401	*EJ-384277J	SOCKET OUTLET M7037 2P
TM402	EJ-349061	TERMINAL PUSH YKD21-0025 P 8P [SPEAKER TERMINAL]

10. POWER SUPPLY P.C BOARD

Ref. No.	Part No.	Description
C503A	*EC-338411	C CE V FZ 103P 400AC [C,A]
C503B	*EC-389156J	C MMY V XE 472M 250AC [E]
C504	EC-389170J	C MMY V F12 MMHF 473K 400DC
C505	EC-381091J	C EC V S10 682M 56.0DC
C506	EC-381091J	C EC V S10 682M 56.0DC
C507	EC-370033	C EC V CUT SME 102M 35.0DC
C508	EC-370033	C EC V CUT SME 102M 35.0DC
C509	EC-383146J	C EC V CUT SME 102M 50.0DC
D501	*ED-330319	D SILICON DBA10B 100/1.0A
D502	*ED-349662	D SILICON DS135E-FA6 F10 100/1
D503	*ED-384278J	D SILICON RBV602 200/6.0A
D504	*ED-330319	D SILICON DBA10B 100/1.0A
D505	*ED-349662	D SILICON DS135E-FA6 F10 100/1
IC501	*EI-384279J	IC MC7806CT
RL501	*EQ-347611	RELAY POW G2R-1112PFD-V 1NO 12V
R504	*ER-356573	R SD ANTI-STATIC 1/2W 225K [C,A]
TM501	*EJ-384283J	SOCKET OUTLET M7037-B 2X2P [C,A]
TR501	ET-360399	TR DTC114TS
TR502	ET-360067	TR 2SC3330 T,U F05
T501A	*BT-384281J	TRANS POW A1028S-CA [C,A]
T501B	*BT-387992J	TRANS POW A1028S-E [E]

Ref. No.	Part No.	Description
F2A	*EF-309391	FUSE TSC 125V 800MA [C,A]
F2B	*EF-668474	FUSE SEMKO T 250V 400MA [E]
F3A	*EF-309391	FUSE TSC 125V 800MA [C,A]
F3B	*EF-668474	FUSE SEMKO T 250V 400MA [E]
F4A	*EF-309391	FUSE TSC 125V 800MA [C,A]
F4B	*EF-668474	FUSE SEMKO T 250V 400MA [E]

11. FRONT END P.C BOARD

Ref. No.	Part No.	Description
D1	ED-349448	D VARACTOR 1SV147
D2	ED-349448	D VARACTOR 1SV147
D4	ED-349448	D VARACTOR 1SV147
L1	EO-349461	COIL FIX 2 LINK
L2	EO-349462	COIL FIX 2 U147
L3	EO-349461	COIL FIX 2 LINK
L4	EO-349462	COIL FIX 2 U147
L6	EO-359056	COIL FIX 1 LAL03NA 2R2M
L7	EO-353687	COIL OSC 2 E525HN-110003
TR1	ET-349449	TR FET 2SK161 O,Y
TR2	ET-336869	TR 2SC2999 C,D
TR3	ET-328265	TR 2SC930 F
TR4	ET-349449	TR FET 2SK161 O,Y
T1	EO-337640	COIL IFT 119AC-15533X 10.7MHZ

12. CONTROL P.C BOARD

Ref. No.	Part No.	Description
BT1	*EZ-358816	BATTERY LITHIUM BR2032-1HF
D1	ED-624903	D SILICON H 1S2473
D2	ED-624903	D SILICON H 1S2473
D3	ED-624903	D SILICON H 1S2473
D4	ED-624903	D SILICON H 1S2473
D5	ED-624903	D SILICON H 1S2473
D6	ED-624903	D SILICON H 1S2473
D7	ED-624903	D SILICON H 1S2473
D8	ED-624903	D SILICON H 1S2473
D9	ED-624903	D SILICON H 1S2473
D10	ED-307572	D SILICON H 1SS131
D11	ED-307572	D SILICON H 1SS131
D12	ED-624903	D SILICON H 1S2473
D13	ED-624903	D SILICON H 1S2473
D14	ED-624903	D SILICON H 1S2473
D15	ED-624903	D SILICON H 1S2473
D16	ED-624903	D SILICON H 1S2473
D17	ED-624903	D SILICON H 1S2473
D18	ED-624903	D SILICON H 1S2473
D19	ED-624903	D SILICON H 1S2473
D20	ED-624903	D SILICON H 1S2473
D21	ED-624903	D SILICON H 1S2473
D22	ED-624903	D SILICON H 1S2473
D23	ED-624903	D SILICON H 1S2473
D24	ED-624903	D SILICON H 1S2473
D25	ED-305704	D ZENER H HZ4 B2
D26	ED-367974	D LED SLV-31PC3 GREEN
D27	ED-367974	D LED SLV-31PC3 GREEN
D28	ED-367974	D LED SLV-31PC3 GREEN
D29	ED-367974	D LED SLV-31PC3 GREEN
D30	ED-367974	D LED SLV-31PC3 GREEN
D31	ED-385160J	D LED SLV-31VC3F RED
D32	ED-385160J	D LED SLV-31VC3F RED
D33	ED-367974	D LED SLV-31PC3 GREEN
D34	ED-367974	D LED SLV-31PC3 GREEN
D35	ED-367974	D LED SLV-31PC3 GREEN
D36	ED-367974	D LED SLV-31PC3 GREEN
D37	ED-367974	D LED SLV-31PC3 GREEN
D38	ED-367974	D LED SLV-31PC3 GREEN
D39	ED-367974	D LED SLV-31PC3 GREEN
D40	ED-367974	D LED SLV-31PC3 GREEN [C,A]
D41	ED-367974	D LED SLV-31PC3 GREEN
D42	ED-624903	D SILICON H 1S2473 [E]
FL1	EM-384374J	IND FL 8-BT-29ZAK CHARACTER
IC1	EI-384264J	IC A1027 1271
IC2	EI-343417	IC LB1294
IC3	EI-349719	IC M5218P
IC4	EI-349719	IC M5218P
P1	EJ-382690J	PLUG 174075-5 5P
P2	EJ-382690J	PLUG 174075-5 5P
P3	EJ-382690J	PLUG 174075-5 5P
P4	EJ-384267J	PLUG 174711-5 5P
R2	ER-322591	R CB H S10 FS RDS 1/4W 101J
R3	ER-322591	R CB H S10 FS RDS 1/4W 101J
SR1	EH-368950	COMP R RKC4BS 104J
SR2	EH-384373J	COMP R RKC11BS 472J
TS101	ES-359172	SW TACT SKHHAP [POWER]
TR1	ET-360399	TR DTC114TS
TR2	ET-360399	TR DTC114TS
TR3	ET-360399	TR DTC114TS
TR4	ET-360399	TR DTC114TS
TR5	ET-360399	TR DTC114TS
TR6	ET-363953	TR DTA114TS
TR7	ET-354415	TR DTA144ES
TR8	ET-360399	TR DTC114TS
TR9	ET-360399	TR DTC114TS
TR10	ET-360067	TR 2SC3330 T,U F05
TR11	ET-363953	TR DTA114TS

Ref. No.	Part No.	Description
VR1	EV-384316J	VR ROTARY RK1631220 B103X2 [BASS]
VR2	EV-384316J	VR ROTARY RK1631220 B103X2 [TREBLE]
VR3	EV-384317J	VR ROTARY RK1631220 M254N254 [BALANCE]
X1	EI-388110J	OSC CE CST4.19MG 4.194MHZ

13. TACT SW P.C BOARD

Ref. No.	Part No.	Description
TS101	ES-349474	SW TACT SKHHAM004A [1/11]
TS102	ES-349474	SW TACT SKHHAM004A [2/12]
TS103	ES-349474	SW TACT SKHHAM004A [3/13]
TS104	ES-349474	SW TACT SKHHAM004A [4/14]
TS105	ES-349474	SW TACT SKHHAM004A [5/15]
TS106	ES-349474	SW TACT SKHHAM004A [6/16]
TS107	ES-349474	SW TACT SKHHAM004A [7/17]
TS108	ES-349474	SW TACT SKHHAM004A [8/18]
TS109	ES-349474	SW TACT SKHHAM004A [9/19]
TS110	ES-349474	SW TACT SKHHAM004A [0/10/20]
TS111	ES-349474	SW TACT SKHHAM004A [REAR LEVEL UP]
TS112	ES-349474	SW TACT SKHHAM004A [REAR LEVEL DOWN]
TS113	ES-349474	SW TACT SKHHAM004A [SIMULATION ON/OFF]
TS114	ES-349474	SW TACT SKHHAM004A [SURROUND MODE]
TS115	ES-349474	SW TACT SKHHAM004A [VCR1]
TS116	ES-349474	SW TACT SKHHAM004A [TUNING UP]
TS117	ES-349474	SW TACT SKHHAM004A [TUNING DOWN]
TS118	ES-349474	SW TACT SKHHAM004A [DIRECT]
TS119	ES-349474	SW TACT SKHHAM004A [TUNING MODE]
TS120	ES-349474	SW TACT SKHHAM004A [V.DISC 2 CAMCORDER]
TS121	ES-349474	SW TACT SKHHAM004A [V.DISC 1 TV]
TS122	ES-349474	SW TACT SKHHAM004A [VCR2]
TS123	ES-349474	SW TACT SKHHAM004A [SOUND INSERT]
TS124	ES-349474	SW TACT SKHHAM004A [CD]
TS125	ES-349474	SW TACT SKHHAM004A [MEMORY]
TS126	ES-349474	SW TACT SKHHAM004A [BAND]
TS127	ES-349474	SW TACT SKHHAM004A [SCAN]
TS128	ES-349474	SW TACT SKHHAM004A [FM MODE AUTO/MONO]

14. SPEAKER SW P.C BOARD

Ref. No.	Part No.	Description
J201	EJ-369995	PHONE J 3P HLJ0540-410 GP 6.3 [PHONES9
R201	ER-371591	R OMF H S15 FS 2W 221J
SW201	ES-384346J	SW PUSH SPUL23 04-02 2THRPW N [SPEAKER SELECTOR SW]

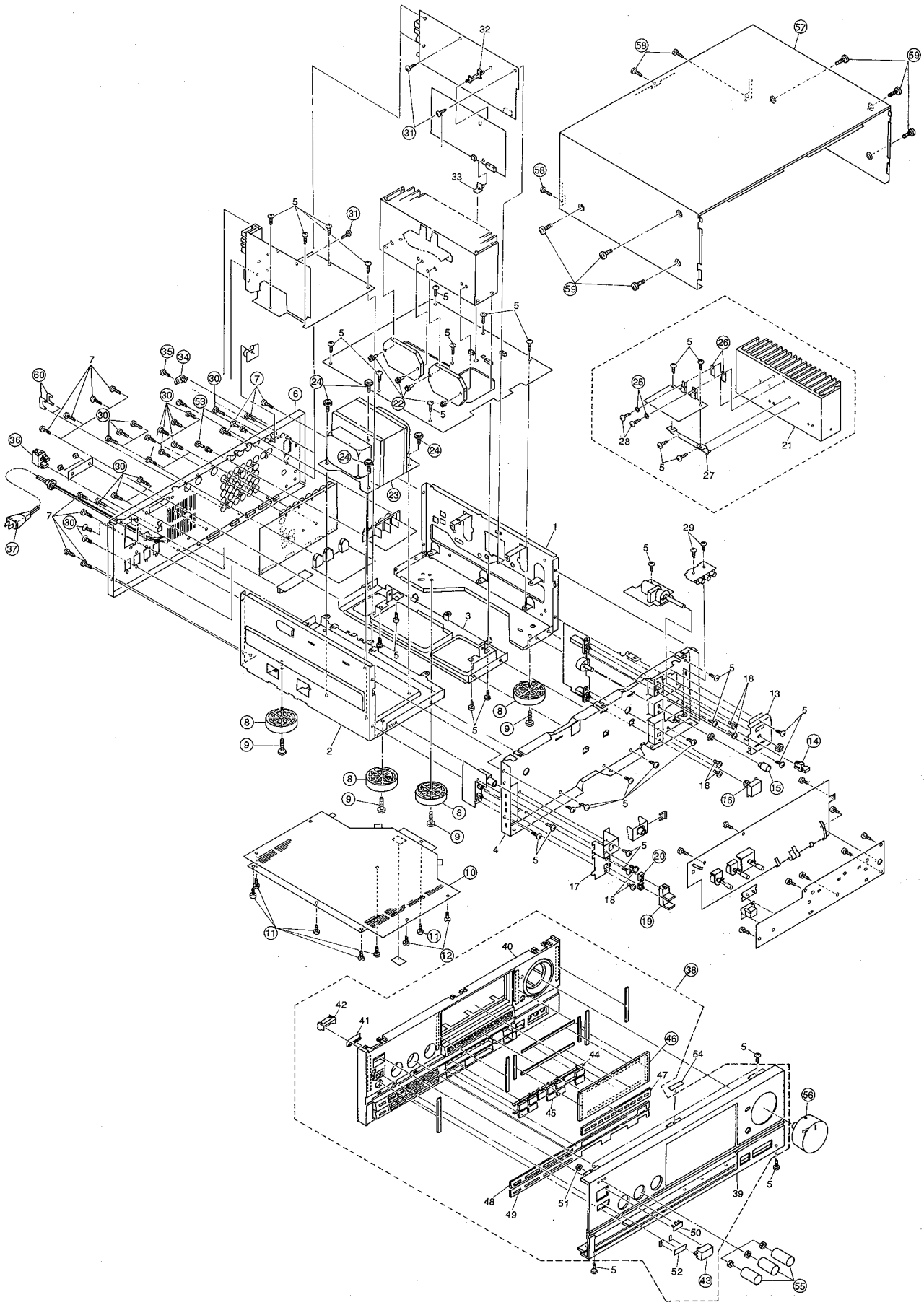
15. REMOCON P.C BOARD

Ref. No.	Part No.	Description
D301	ED-384268J	D LED SLP-175D-50 RED [ON/STANDBY]
PH301	ET-381637J1	DETECTOR GP1U521X

16. LED (A) P.C BOARD

Ref. No.	Part No.	Description
D401	ED-361885	D LED SLP-384C-51 GREEN [POWER]
D402	ED-361885	D LED SLP-384C-51 GREEN [POWER]

FINAL ASSEMBLY BLOCK



17. FINAL ASSEMBLY BLOCK

Ref. No.	Part No.	Description
5	ZS-447840	T2BR30X08STL CMT
6A	SP-384223J1	PANEL REAR AA-V235(A,C) [C,A]
6B	SP-388858J	PANEL REAR AA-V235(E) [E]
7	ZS-308846	T2BR30X08STL BZN PROJECTION
8	SA-379375	FOOT(N)
9	ZS-354055	ST BR30X12STL CMT
10	SP-384219J	BOTTOM PLATE
11	ZS-447840	T2BR30X08STL CMT
12	ZS-463353	T2BR30X08STL BNI
14	SK-384004J	KNOB PUSH
15	SK-384005J	KNOB VR
16	SK-384007J	KNOB DIRECT
18	ZS-422076	PAN30X05STL CMT
19	SK-384023J	KNOB SP
20	ZW-368205	FLEXIBLE RING 2414-0-0-086-01
22	ZS-384345J	+6T2 30X20STL CMT C070
23A	*BT-384247J	TRANS POW A1029-AC [C,A]
23B	*BT-387993J	TRANS POW A1029-E [E]
24	ZS-346742	ST BID40X08STL CMT CUP
25	ZW-632226	WASHER INSULATOR (BUSH M)
26	EZ-384327J	TR ACCE INSU. TC20AG-AV TO220
28	ZS-523664	T2BR30X10STL CMT
29	ZS-336351	T2BR30X08STL NI3
30	ZS-350934	PT BR30X08STL BNI
31	ZW-698308	RV NYL30X055 BL
34	EJ-329610	TERMINAL W/SCREW UB-0067 L 1P
35	ZS-308846	T2BR30X08STL BZN PROJECTION
36	SZ-362273	HOLDER ANTENNA (2)
37A	*EW-363827	AC CORD200 KP10WSPT2HB100 A UC [C,A]
37B	*EW-363853	AC CORD KP419LTCE B100 A EV [E]
38	BD-A1027C060C	PANEL FRONT BLK AA-V235-B
43	SK-384021J	KNOB POW B
46	SE-384012J1	IND PLATE(B)
50	SM-365756C	NAME PLATE AKAI(2)
51	ZW-653163	RING CS 280STL PKR
53	ZW-231030	RV NYL30X045 BL
55	SK-375362	KNOB BALANCE
56	SK-381023J1	KNOB VR B PART
57	SP-373246B	COVER UPPER-BLACK
58	ZS-308846	T2BR30X08STL BZN PROJECTION
59	ZS-341960	ST BID40X06STL BNI
60	EJ-369015	PLUG SHORT-PIN CNT31-0057

NOTE:
Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

18. ACCESSARY

Ref. No.	Part No.	Description
1A	AX-384260J	REMOCON RC-V235 [C,A]
1B	AX-388189J	REMOCON RC-V235E [E]
2	EJ-352118	SOCKET COAX PAL B2-714P-900
3	EE-359265	ANT LOOP LA-200A-A
4	EE-381076J	ANT DIPOLE (FM)

19. REMOCON RC-V235

Ref. No.	Part No.	Description
D1	ED-376111	D LED SE303AC INFRARED
D2	ED-717990	D SILICON 1SS181
D3	ED-717990	D SILICON 1SS181
D4	ED-717990	D SILICON 1SS181
D5	ED-717990	D SILICON 1SS181
IC1	EI-726144J	IC UPD6124G-536
Q1	ET-721755J	TR 2SD596
Z1	EI-376113	OSC CE CSB455EB
1	SC-726125J	CASE BATTERY RC-V235/335

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BA-A1027A030D	2-2B	ED-349460-A	7-D4	EH-355568	7-FL2	EO-359056	11-L6
BA-A1027C030C	2-2A	ED-349460-A	7-D5	EH-368950	12-SR1	EO-361630	7-T6
BA-A1029A040B	2-4B	ED-349662	1-11	EH-384373J	12-SR2	EO-363279	7-T3
BA-A1029C020A	2-1	ED-349662	10-D502	EI-343417	1-40	EO-363291	7-T5
BA-A1029C040A	2-4A	ED-349662	10-D505	EI-343417	12-IC2	EO-366394	7-L1
BA-F0131A010A	2-3	ED-361885	1-7	EI-344422	1-54	EO-366394	7-L2
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BT-387993J	17-23B	ED-367974	12-D33	EI-349719	4-IC101	ER-318647	3-FR3
EC-334005	3-C28	ED-367974	12-D34	EI-349719	12-IC3	ER-318647	3-FR4
EC-338411	10-C503A	ED-367974	12-D35	EI-349719	12-IC4	ER-318647	3-FR5
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ED-346567	3-D7	EF-306957	6-F1A	EJ-384277J	1-55	ES-349474	13-TS116
ED-346567	3-D9	EF-309391	1-34	EJ-384277J	9-TM401	ES-349474	13-TS117
ED-346594	1-24	EF-309391	10-F2A	EJ-384283J	1-56	ES-349474	13-TS118
ED-346594	3-D21	EF-309391	10-F3A	EJ-384283J	10-TM501	ES-349474	13-TS119
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ABBREVIATIONS FOR SERVICE MANUAL

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AFC	Auto Frequency Control	MEMO	MEMOry
AGC	Auto Gain Control	MI-COM	MIcro-COMputer
ALC	Auto Level Control	MIN	MINimum
AM	Amplitude Modulation	MIX	MIXing
AMP	AMPlifier	MPX	MultiPleX
ANT	ANTenna	MW	Medium Wave (frequency)
BATT	BATTery	NC	No Connection
BLK	BLocK	NFB	Negative Feed Back
BUFF	BUFFer	OSC	OSCillator
COMP	COMParator	PCB	Printed Circuit Board
DET	DETect (DETector)	PLL	Phase Locked Board
FLD		QD	Quadrature Detector
FM	Frequency Modulation	Rch	Right channel
FREQ	FREQuency	REF	REFerence
GND	GrouND	REG	REGulator
H	High	RF	Radio Frequency
HPF	High Pass Filter	SEG	SEGment
IF	Intermediate Frequency	SELE	SELEctor
IHF	Institute of High Fidelity	SENS	SENSitivity
IND	INDicator	SIG	SIGnal
I/O	In/Out	S/N	Signal to Noise Ratio
JW	Jumper Wire	SSG	Standard Signal Generator
L	Low	STD	STanDard
LCD	Liquid Crystal Display	SW	SWitch: Short Wave (frequency)
Lch	Left channel	THD	Total Harmonic Distortion
LED	Light Emitting Diode	TP	Test Point
LPF	Low Pass Filter	VCO	Voltage Controlled Oscillator
LW	Long Wave (Frequency)	VR	Variable Resistor
		X'TAL	Crystal

AKAI ELECTRIC CO., LTD.

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AKAI

MODEL AA-V235

SCHEMATIC DIAGRAM AND PC BOARDS

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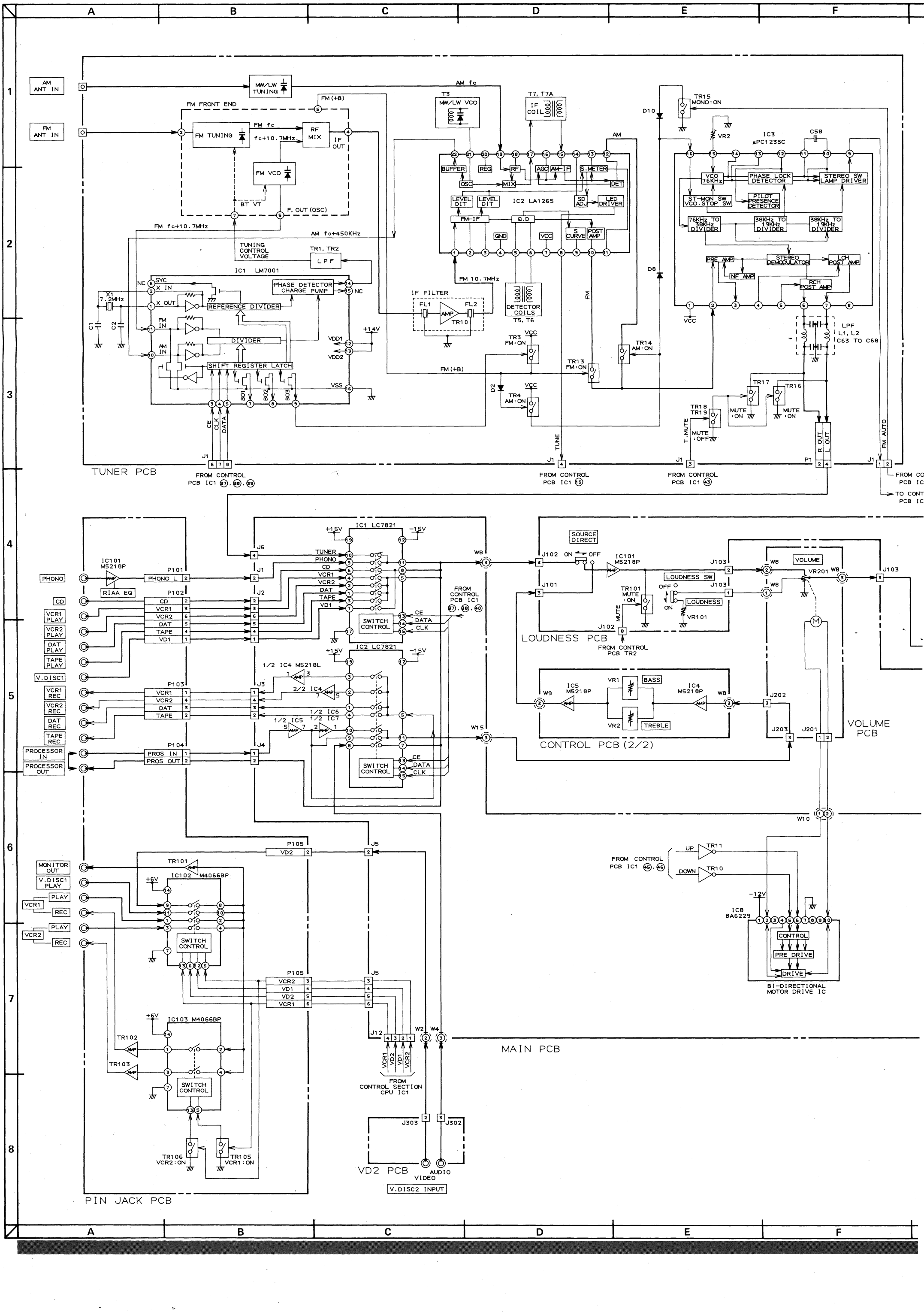
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FM ANT IN
MW/LW TUNING
FM FRONT END
FM (+B)
FM TUNING
FM fc
fc+10.7MHz
RF MIX
IF OUT
FM VCO
BT VT
F. OUT (OSC)
AM fc
T3
MW/LW VCO
T7, T7A
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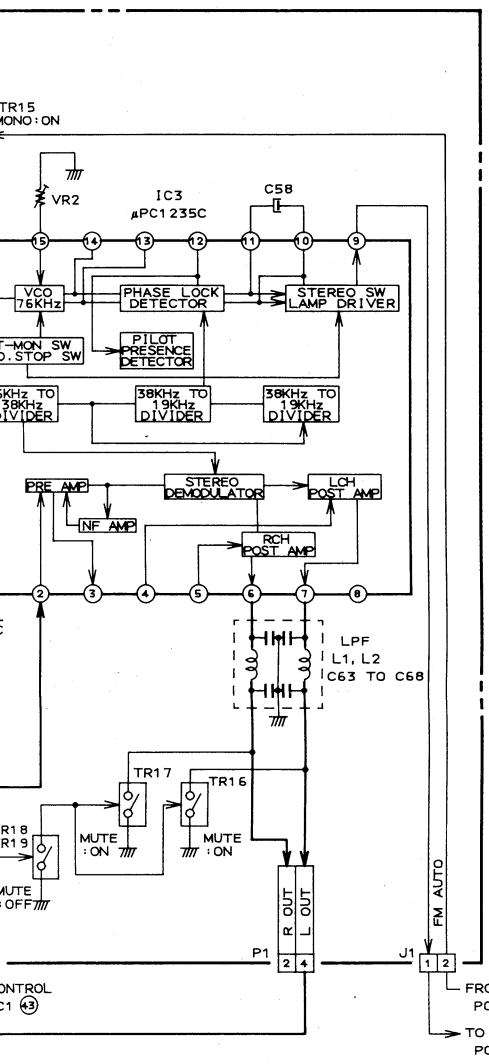
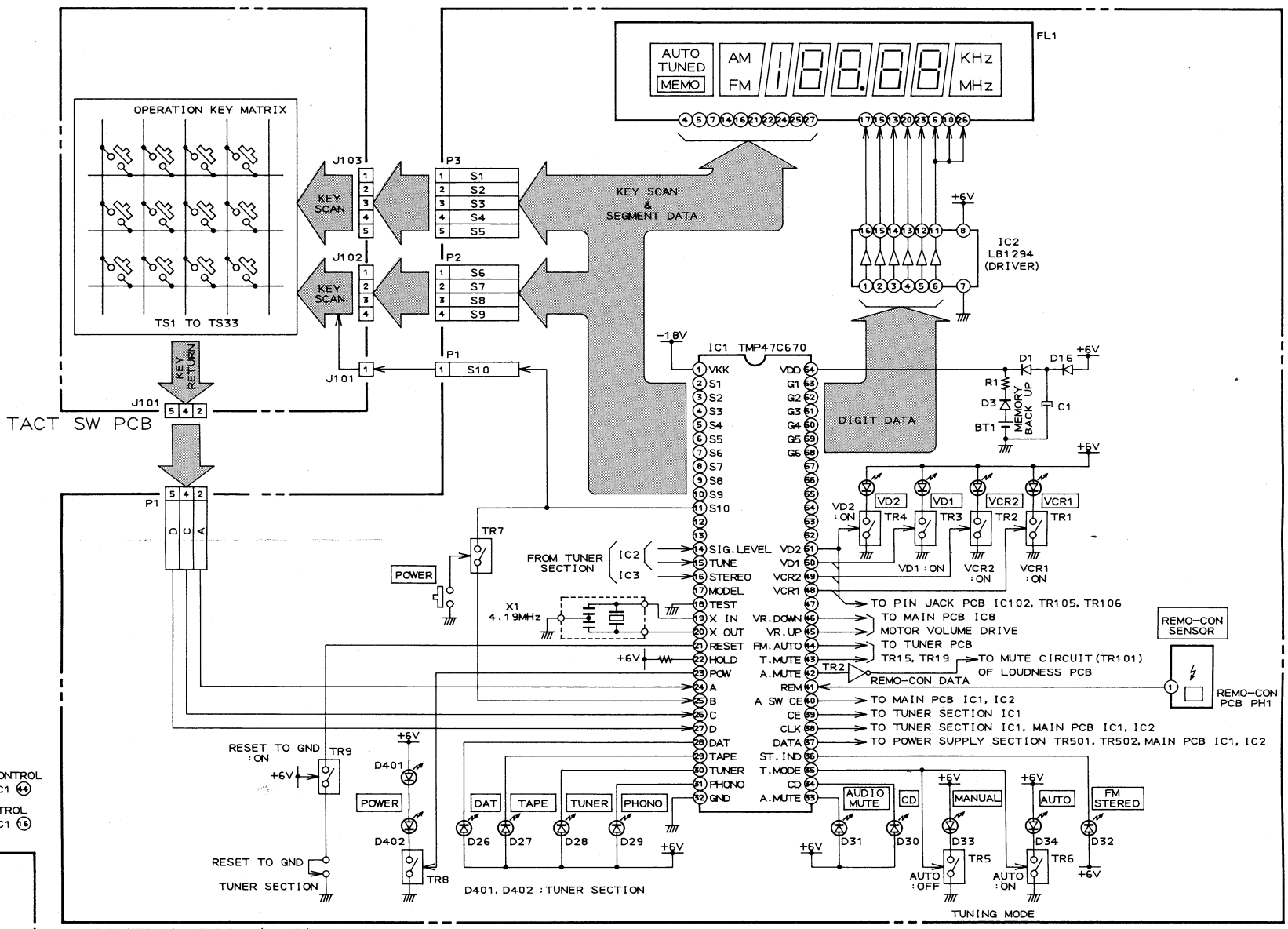
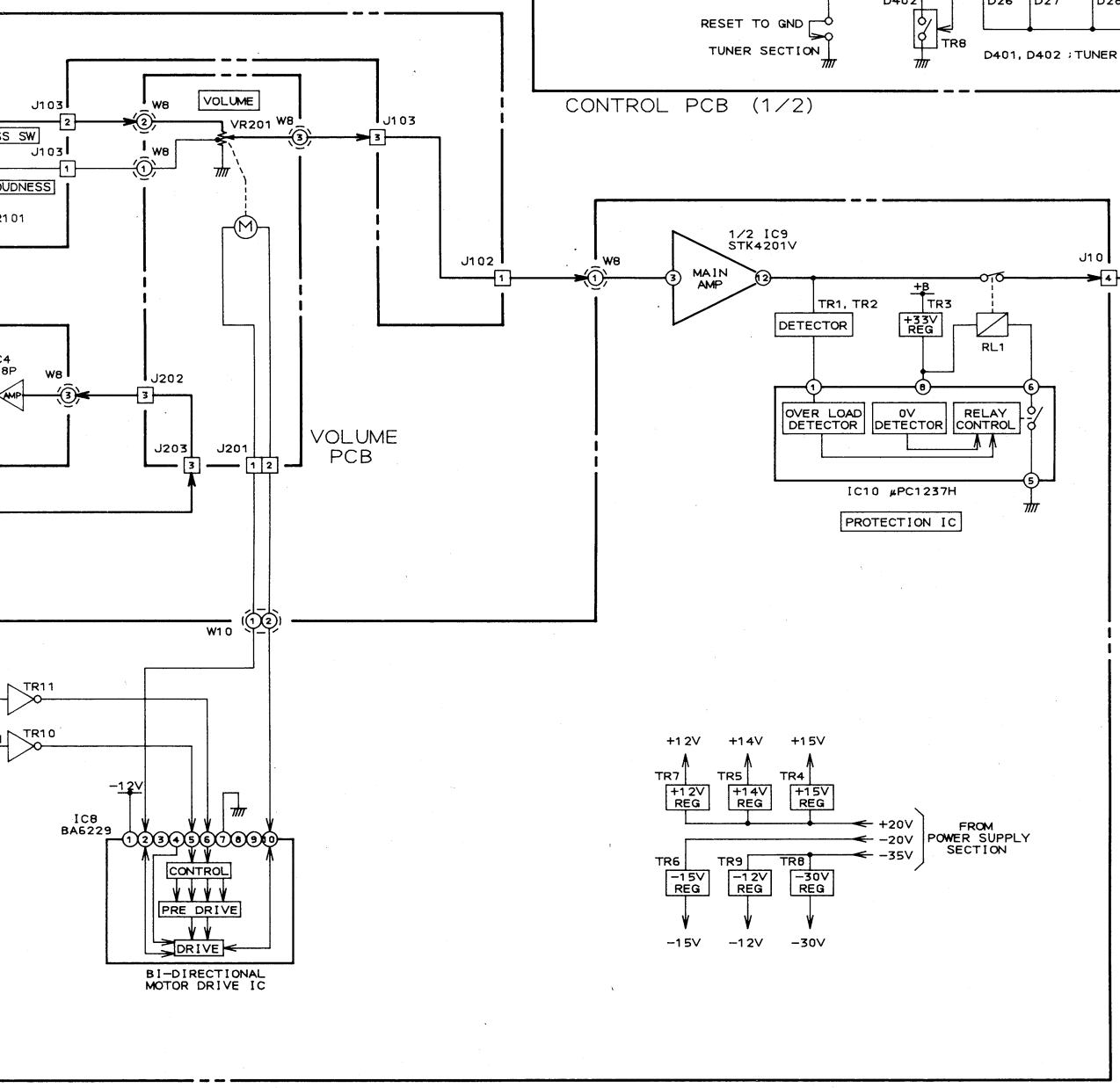
AM
BUFFER
REG
RF
AGC
AM-IF
S.METER
OSC
MIX
DET
LEVEL DIT
LEVEL DIT
IC2 LA1265
SD ADJ
LED DRIVER
FM-IF
Q.D
S CURVE
POST AMP
GND
VCC
FM fc+10.7MHz
AM fc+450KHz
TUNING CONTROL VOLTAGE
TR1, TR2
L P F
IC1 LM7001
SYC
X IN
X OUT
X1 7.2MHz
C1
C2
PHASE DETECTOR CHARGE PUMP
NC
REFERENCE DIVIDER
FM IN
AM IN
DIVIDER
SHIFT REGISTER LATCH
VDD1
VDD2
VSS
+14V
BO1
BO2
BO3
CE
CLK
DATA
FM 10.7MHz
IF FILTER
FL1
FL2
AMP
TR10
DETECTOR COILS
T5, T6
FM
TR3 FM:ON
TR4 AM:ON
TR13 FM:ON
TR14 AM:ON
D2
FM (+B)
TUNE
TR15 MONO:ON
D10
D8
VR2
IC3 µPC1235C
C58
VCO 76KHz
PHASE LOCK DETECTOR
STEREO SW LAMP DRIVER
ST-MON SW VCO.STOP SW
PILOT PRESENCE DETECTOR
76KHz TO 38KHz DIVIDER
38KHz TO 19KHz DIVIDER
38KHz TO 19KHz DIVIDER
PRE AMP
STEREO DEMODULATOR
LCH POST AMP
NF AMP
RCH POST AMP
LPF
L1, L2
C63 TO C68
TR17
TR16
TR18
TR19
MUTE :ON
MUTE :ON
T.MUTE
MUTE :OFF
R OUT
L OUT
FM AUTO
TUNER PCB
FROM CONTROL PCB IC1 (37), (38), (39)
FROM CONTROL PCB IC1 (15)
FROM CONTROL PCB IC1 (43)
FROM CO
PCB IC
TO CONT
PCB IC
PHONO
CD
VCR1 PLAY
VCR2 PLAY
DAT PLAY
TAPE PLAY
V.DISC1
VCR1 REC
VCR2 REC
DAT REC
TAPE REC
PROCESSOR IN
PROCESSOR OUT
IC101 M5218P
RIAA EQ
P101
PHONO L
P102
CD
VCR1
VCR2
DAT
TAPE
VD1
P103
VCR1
VCR2
DAT
TAPE
P104
PROS IN
PROS OUT
J1
J2
J3
J4
J6
IC1 LC7821
+15V
−15V
TUNER
PHONO
CD
VCR1
VCR2
DAT
TAPE
VD1
SWITCH CONTROL
CE
DATA
CLK
FROM CONTROL PCB IC1 (37), (38), (40)
IC2 LC7821
1/2 IC4 M5218L
2/2 IC4
1/2 IC6
1/2 IC5
1/2 IC7
W8
W15
SOURCE DIRECT
J102 ON OFF
J101
IC101 M5218P
TR101 MUTE :ON
MUTE
J102
FROM CONTROL PCB TR2
LOUDNESS SW
LOUDNESS
VR101
J103
VOLUME
VR201
LOUDNESS PCB
IC5 M5218P
IC4 M5218P
VR1
BASS
VR2
TREBLE
W9
J202
J203
J201
CONTROL PCB (2/2)
VOLUME PCB
W10
FROM CONTROL PCB IC1 (45), (46)
UP
DOWN
TR11
TR10
IC8 BA6229
CONTROL
PRE DRIVE
DRIVE
BI-DIRECTIONAL MOTOR DRIVE IC
MAIN PCB
MONITOR OUT
V.DISC1 PLAY
VCR1 PLAY
VCR1 REC
VCR2 PLAY
VCR2 REC
TR101
IC102 M4066BP
IC103 M4066BP
TR102
TR103
TR106 VCR2:ON
TR105 VCR1:ON
P105
VD2
VCR2
VD1
VD2
VCR1
J5
J12
W2
W4
FROM CONTROL SECTION CPU IC1
J303
J302
VD2 PCB
AUDIO
VIDEO
V.DISC2 INPUT
PIN JACK PCB





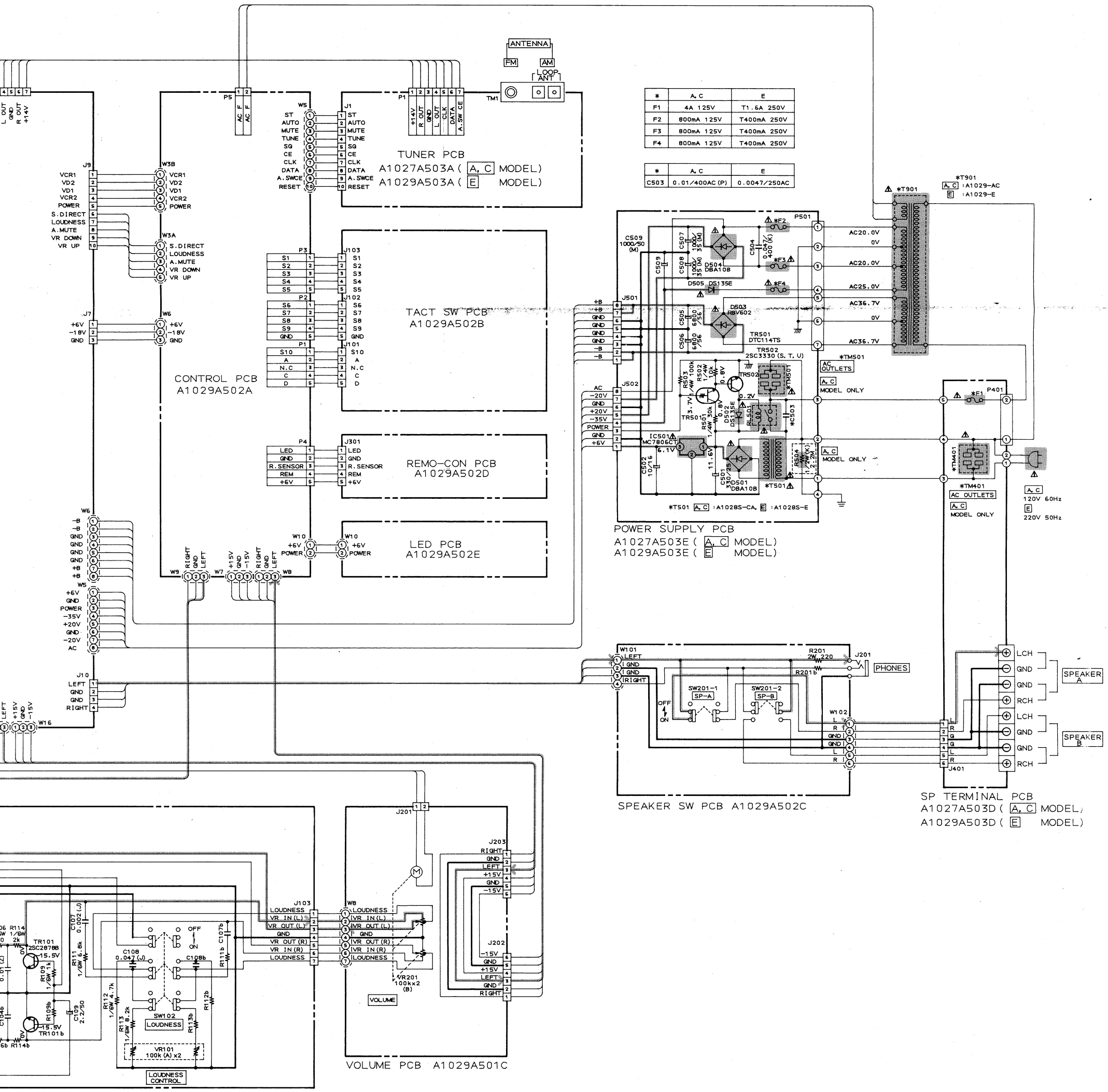
CONTROL PCB (1/2)



POWER SUPPLY SECTION
(POWER SUPPLY PCB&PRIMARY CIRCUIT)

AA-V235
BLOCK DIAGRAM
NO. A102951M

V.DISC2 INPUT
V L R
J301
C302 C301
0.047 0.047
(Z) (Z)
J303 J302
VD2 PCB
A1029A501D
W2 W4
GND VD2 (V) LEFT GND RIGHT
J6
A.SW CE DATA CLK L OUT GND R OUT +14V
P5
AC F AC F
PROCESSOR IN
PROCESSOR OUT
LEFT
RIGHT
J107
J101
J102
J103
J104
J105
J106
PHONO
CD
VCR1 PLAY
VCR2 PLAY
DAT PLAY
TAPE PLAY
V.DISC1
VCR1 REC
VCR2 REC
DAT REC
TAPE REC
MONITOR OUT
V.DISC1 PLAY
VCR1 PLAY REC
VCR2 PLAY REC
P104
PROS IN (L) 1
PROS OUT (L) 2
GND 3
GND 4
PROS OUT (R) 5
PROS IN (R) 6
J4
1 PROS IN (L)
2 PROS OUT (L)
3 GND
4 GND
5 PROS OUT (R)
6 PROS IN (R)
P101
−15V 1
PHONO (L) 2
GND 3
GND 4
PHONO (R) 5
+15V 6
J1
1 −15V
2 PHONO (L)
3 GND
4 GND
5 PHONO (R)
6 +15V
P102
VD1 (L) 1
CD (L) 2
VCR1 (L) 3
TAPE (L) 4
DAT (L) 5
VCR2 (L) 6
GND 7
GND 8
GND 9
VCR2 (R) 10
DAT (R) 11
TAPE (R) 12
VCR1 (R) 13
CD (R) 14
VD1 (R) 15
J2
1 VD1 (L)
2 CD (L)
3 VCR1 (L)
4 TAPE (L)
5 DAT (L)
6 VCR2 (L)
7 GND
8 GND
9 GND
10 VCR2 (R)
11 DAT (R)
12 TAPE (R)
13 VCR1 (R)
14 CD (R)
15 VD1 (R)
P103
VCR1 (L) 1
TAPE (L) 2
DAT (L) 3
VCR2 (L) 4
GND 5
GND 6
VCR2 (R) 7
DAT (R) 8
TAPE (R) 9
VCR1 (R) 10
J3
1 VCR1 (L)
2 TAPE (L)
3 DAT (L)
4 VCR2 (L)
5 GND
6 GND
7 VCR2 (R)
8 DAT (R)
9 TAPE (R)
10 VCR1 (R)
P105
GND 1
VD2 (V) 2
VCR2 3
VD1 4
VD2 5
VCR1 6
+3V 7
+6V 8
+12V 9
GND 10
J5
1 GND
2 VD2 (V)
3 VCR2
4 VD1
5 VD2
6 VCR1
7 +3V
8 +6V
9 +12V
10 GND
IC101 M5218P-21
IC102 M4066BP
IC103 M4066BP
TR101 2SA1317 (S, T, U)
TR102 2SA1317 (S, T, U)
TR103 2SA1317 (S, T, U)
TR104 DTC114TS
TR105 DTC144TS
TR106 DTC144TS
MAIN PCB
A1029A501A
J9
VCR1 1
VD2 2
VD1 3
VCR2 4
POWER 5
S.DIRECT 6
LOUDNESS 7
A.MUTE 8
VR DOWN 9
VR UP 10
W3B
W3A
J7
+6V 1
−18V 2
GND 3
W6
CONTROL PC
A1029A502A
W6
W5
W9
W7
W11 W8 W10 W15 W16
J10
LEFT 1
GND 2
GND 3
RIGHT 4
J101 J102
SW101
SOURCE DIRECT
OFF ON
SW102
LOUDNESS
VR101
100k (A) x2
LOUDNESS CONTROL
LOUDNESS PCB A1029A501B
PIN JACK PCB A1027A503B (A, C MODEL)
A1029A503B (E MODEL)



*	A, C	E
F1	4A 125V	T1.6A 250V
F2	800mA 125V	T400mA 250V
F3	800mA 125V	T400mA 250V
F4	800mA 125V	T400mA 250V

*	A, C	E
C503	0.01/400AC (P)	0.0047/250AC

WARNING: ⚠ AND ▒▒ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSMENT: ⚠ ET ▒▒, ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ, POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L' APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

: B (POWER SUPPLY) LINE

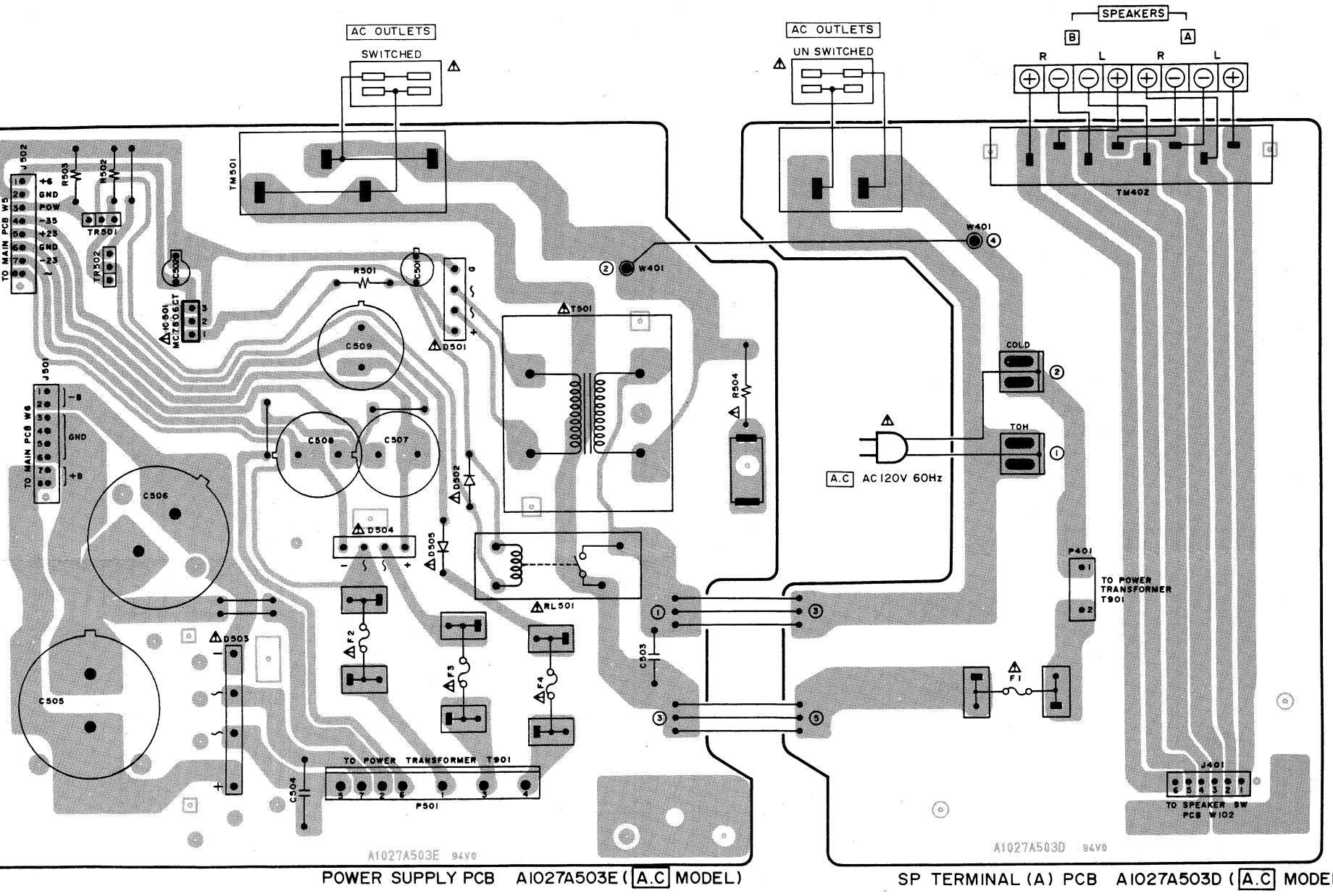
: SIGNAL LINE

*INDICATED VOLTAGES ARE MEASURED IN PHONO MODE AND VOLUME IS SET TO MINIMUM.

*INDICATED SIGNAL LINE IS IN PHONO MODE AND LEFT CHANNEL ONLY.

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W (J)
ALL CAPACITORS IN μF 50WV (M)

AA-V235
CONNECTION DIAGRAM
NO.4-1 A102901M

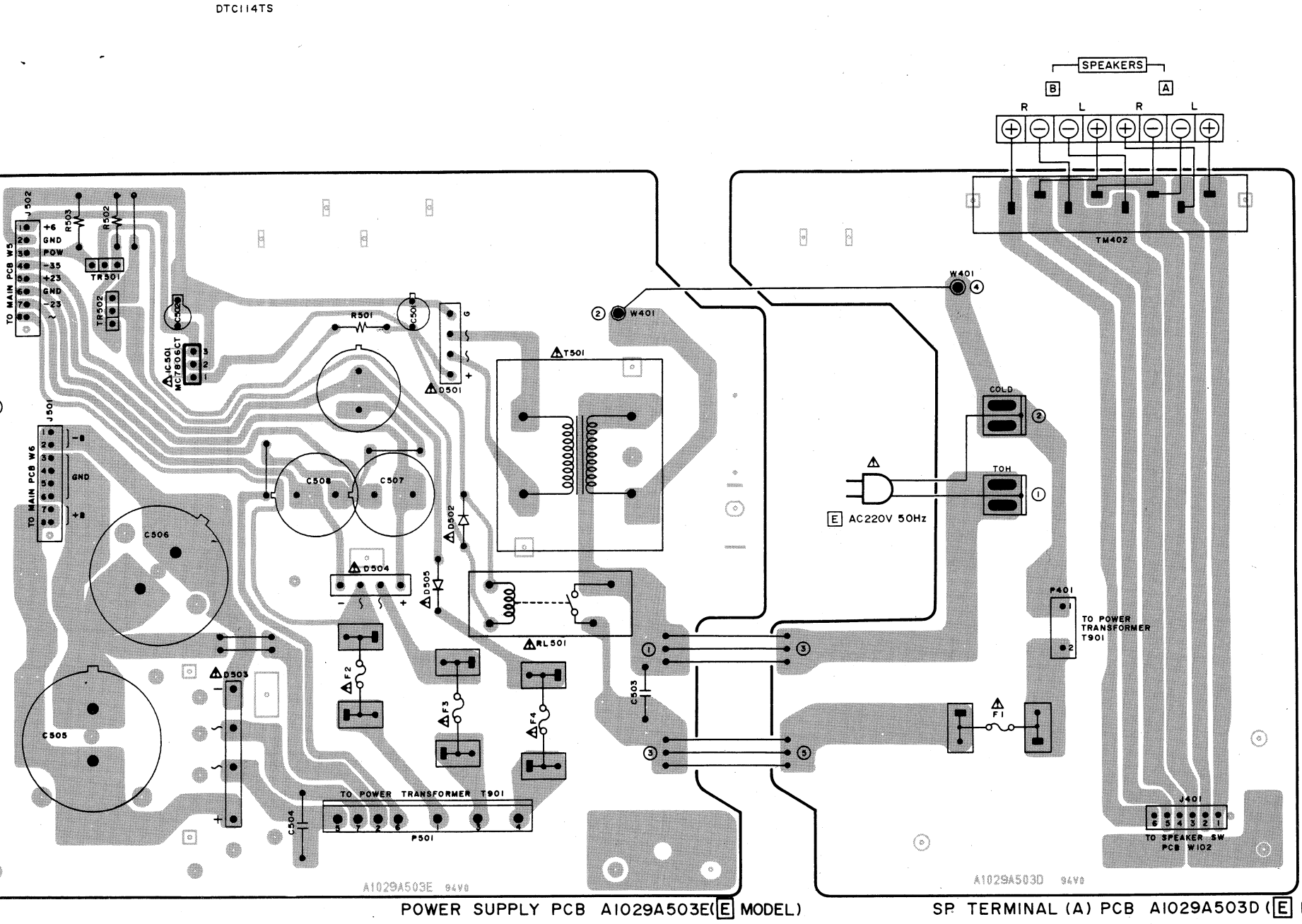


POWER SUPPLY PCB A1027A503E(A.C MODEL)

SP TERMINAL (A) PCB A1027A503D (A.C MODEL)

B NPN TRANSISTOR

E C B
2SC3330
DTC114TS



POWER SUPPLY PCB A1029A503E(E MODEL)

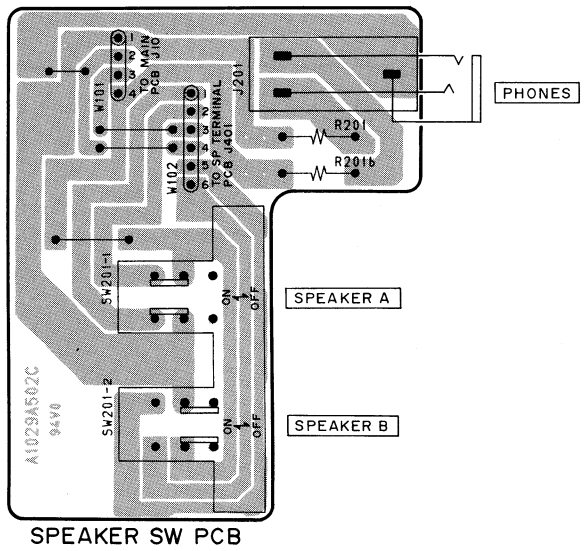
SP TERMINAL (A) PCB A1029A503D (E MODEL)

B NPN TRANSISTOR

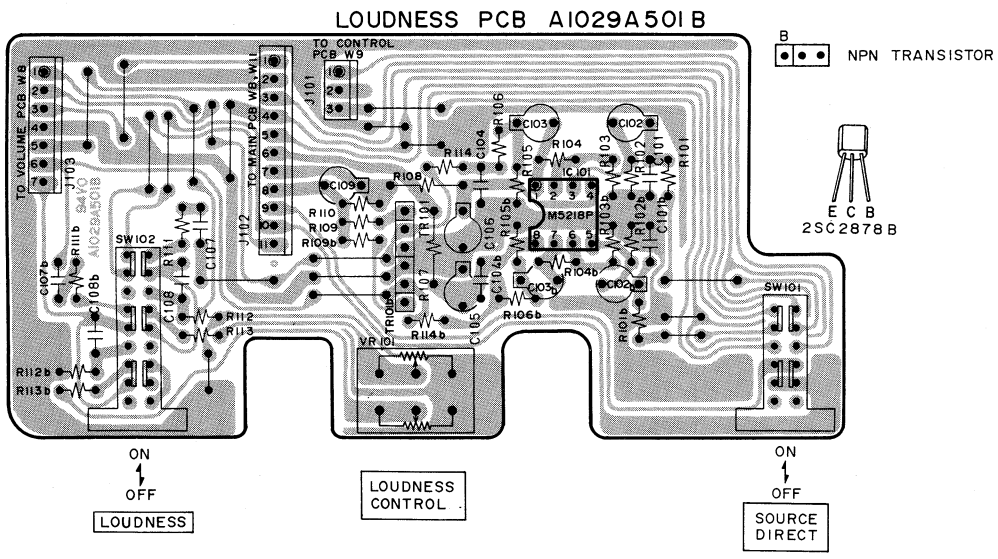
E C B
2SC3330
DTC114TS

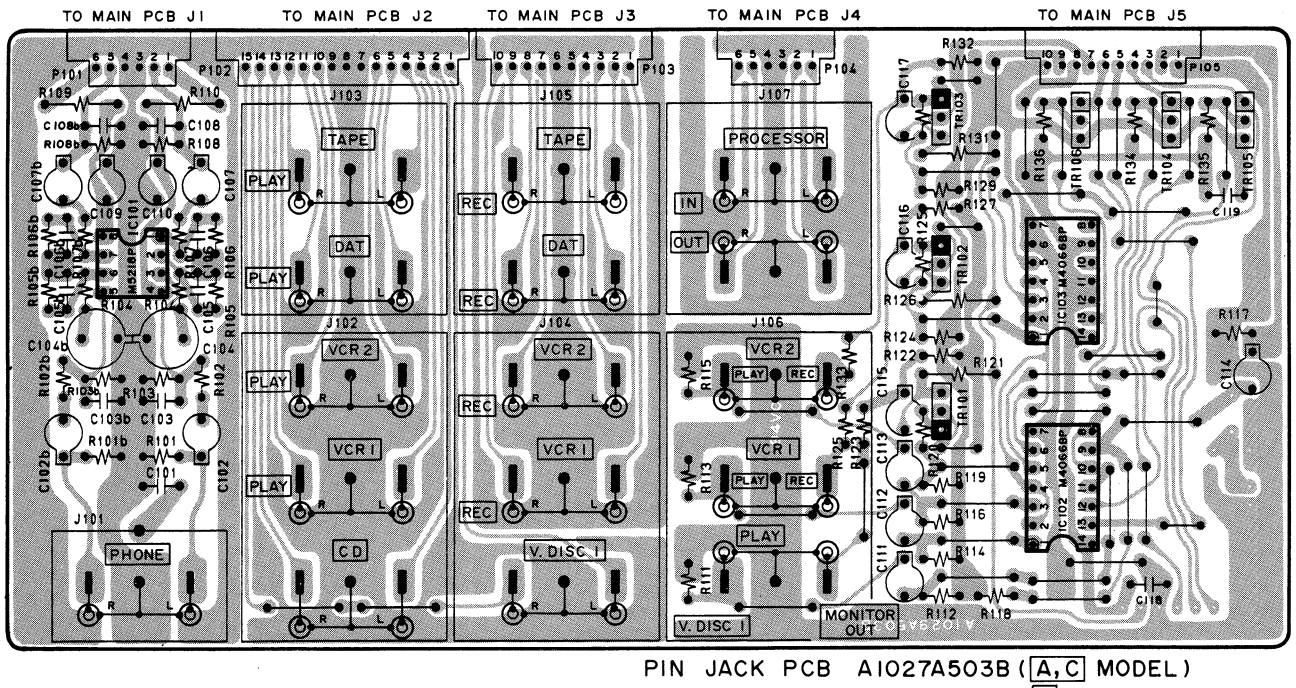
WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT



SPEAKER SW PCB
A1029A502C



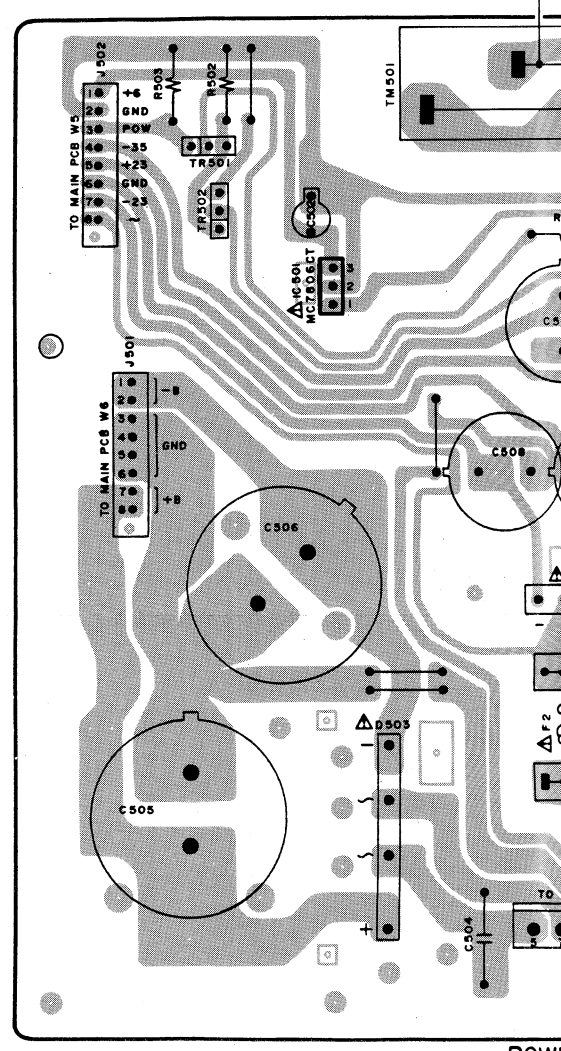


PIN JACK PCB A1027A503B(A,C MODEL)
A1029A503B(E MODEL)

B
PNP TRANSISTOR

B
NPN TRANSISTOR

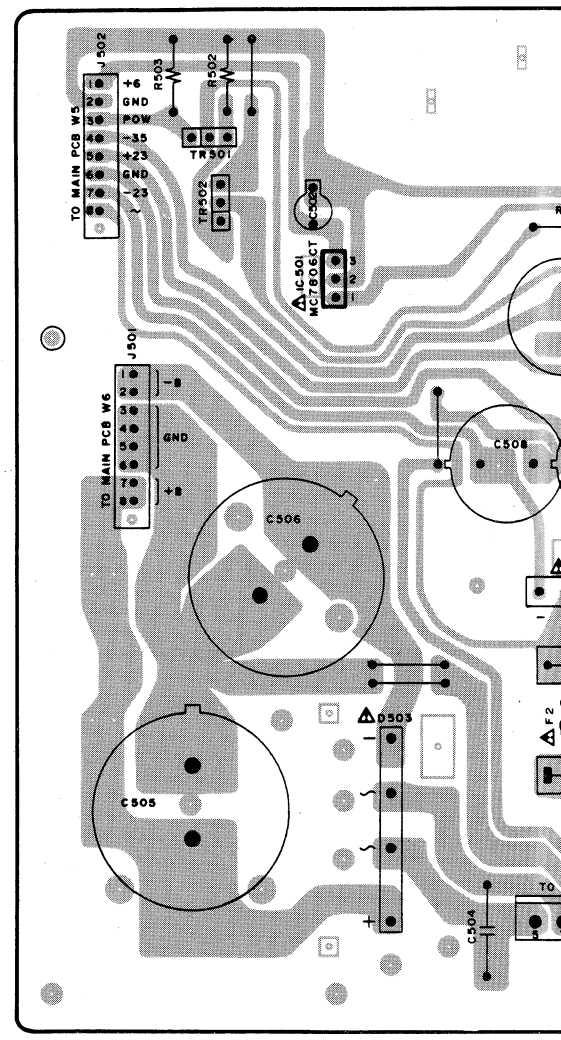
E C B
2SA1317
DTC144TS



POWE

B
NPN TRANSISTOR

E C B
2SC3330
DTC114TS



B
NPN TRANSISTOR

E C B
2SC3330
DTC114TS

B (POWER SUPPLY) LINE

SIGRAL LINE

*INDICATED VOLTAGES ARE MEASURED IN PHONO MODE AND VOLUME IS SET TO MINIMUM.

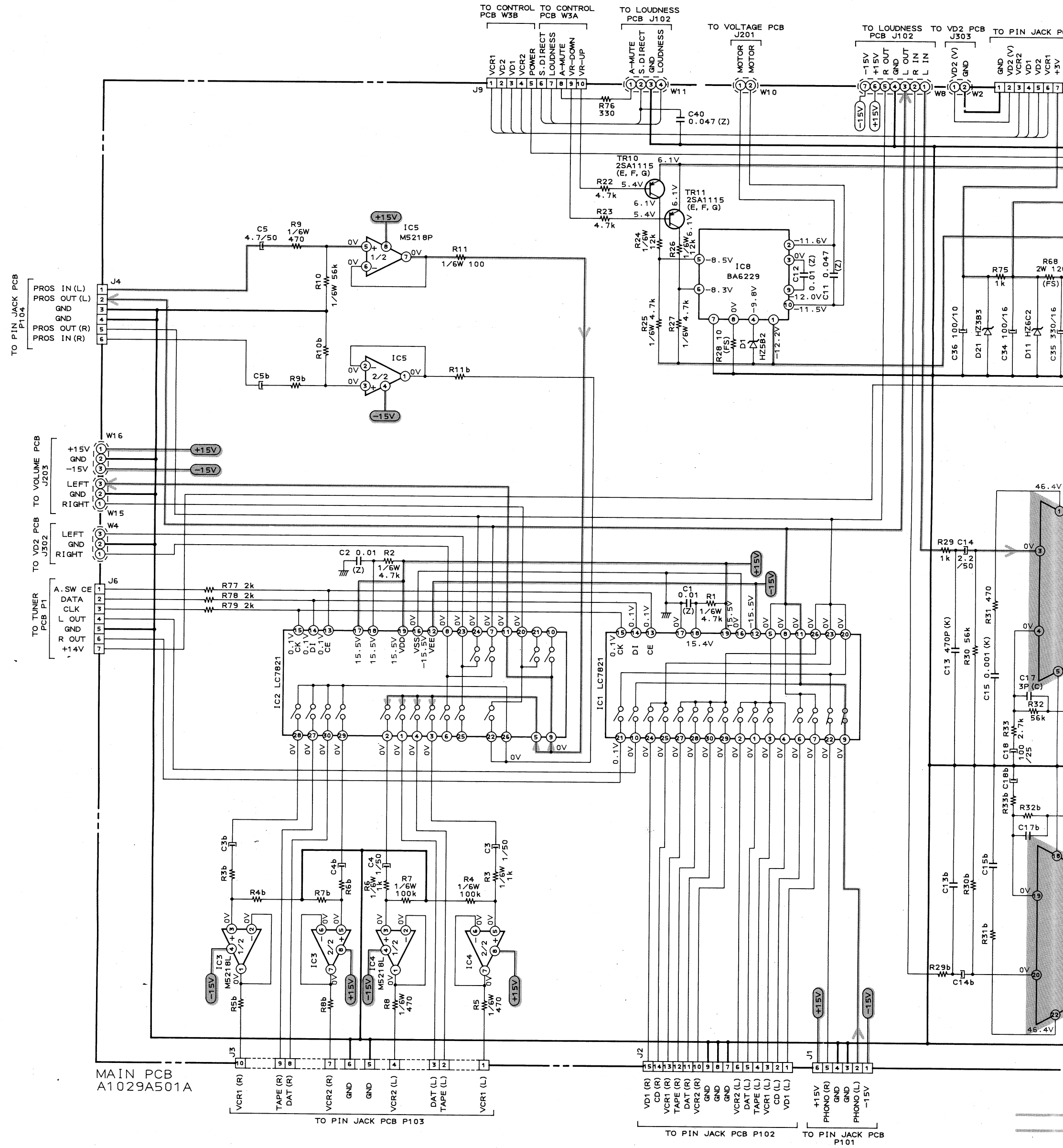
*INDICATED SIGNAL LINE IS IN PHONO MODE AND LEFT CHANNEL ONLY.

WARNING: ⚠ AND ▨ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSMENT: ⚠ ET ▨, ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ, POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

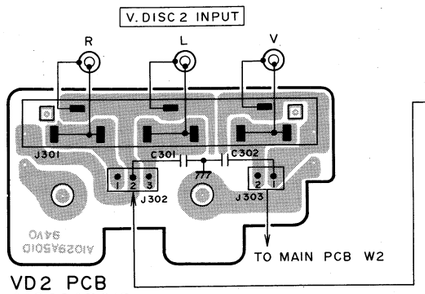
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μF 50WV (M)

AA-V235
MAIN PCB
SCHEMATIC DIAGRAM
NO.4-2 A102902M
4

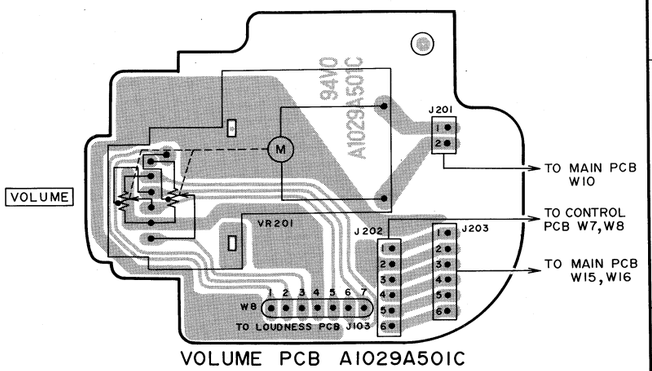


*INDICATED VOLTAG
AND VOLUME IS SET

*INDICATED SIGNAL
LEFT CHANNEL ONLY



VD2 PCB
A1029A501D

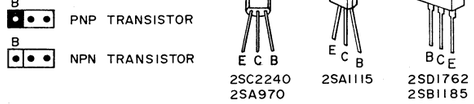


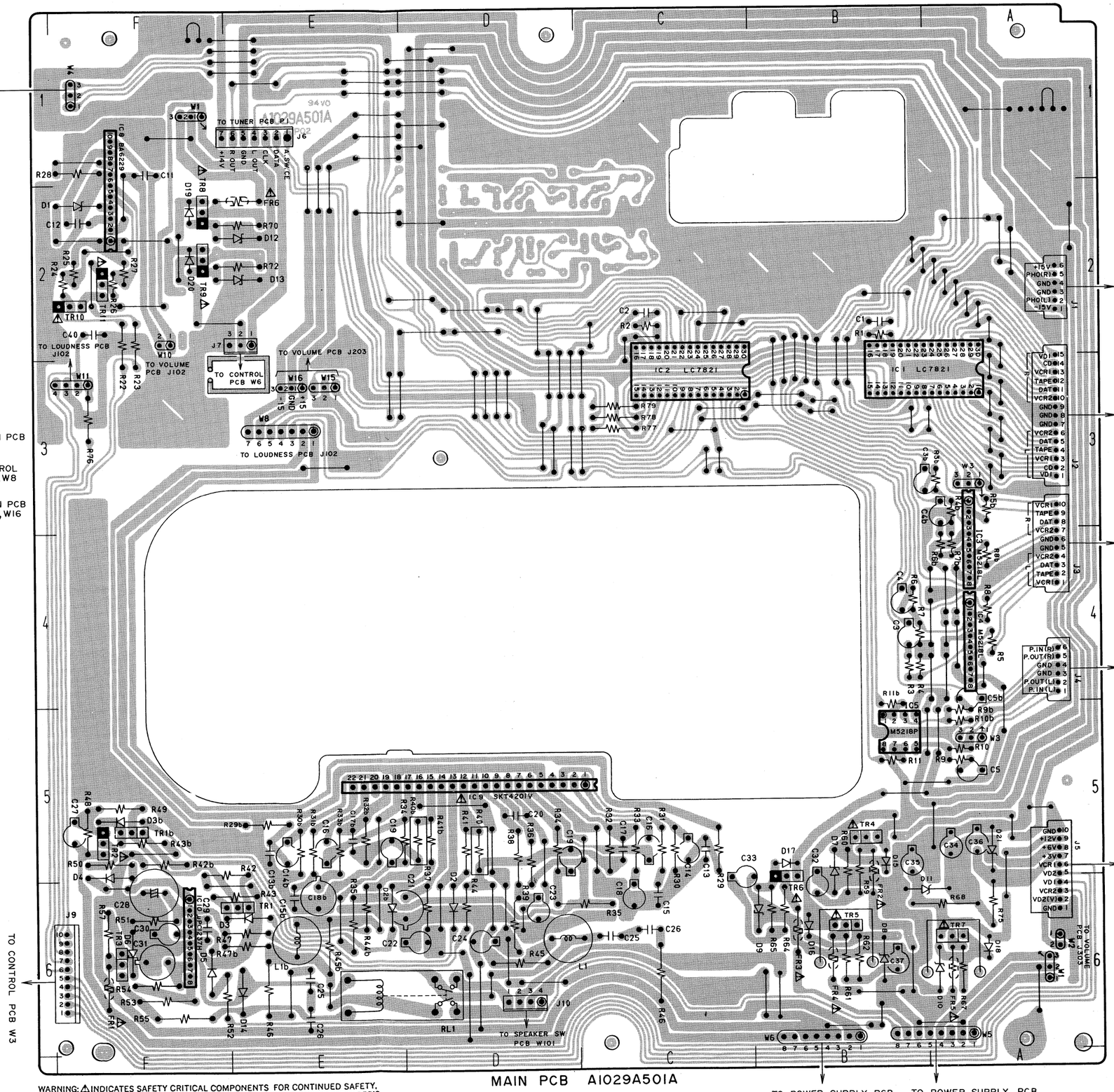
VOLUME PCB A1029A501C

LOCATION OF COMPONENTS

IC's		TRANSISTOR's	
IC 1	A3	TR 1	E6
IC 2	C3	TR 1b	F5
IC 3	A4	TR 2	F5
IC 4	A4	TR 3	F6
IC 5	B5	TR 4	B5
IC 8	F1, 2	TR 5	B6
IC 9	D5	TR 6	B6
IC 10	F6	TR 7	A6
		TR 8	F2
		TR 9	F2
		TR 10	F2
		TR 11	F2

CONNECTORS			
J 1	A2	W 2	A6
J 2	A3	W 4	F1
J 3	A4	W 5	A6
J 4	A4	W 6	B6
J 5	A5, 6	W 8	E3
J 6	E1	W10	F2
J 7	E2	W11	F3
J 9	F6	W15	E3
J10	D6	W16	E3





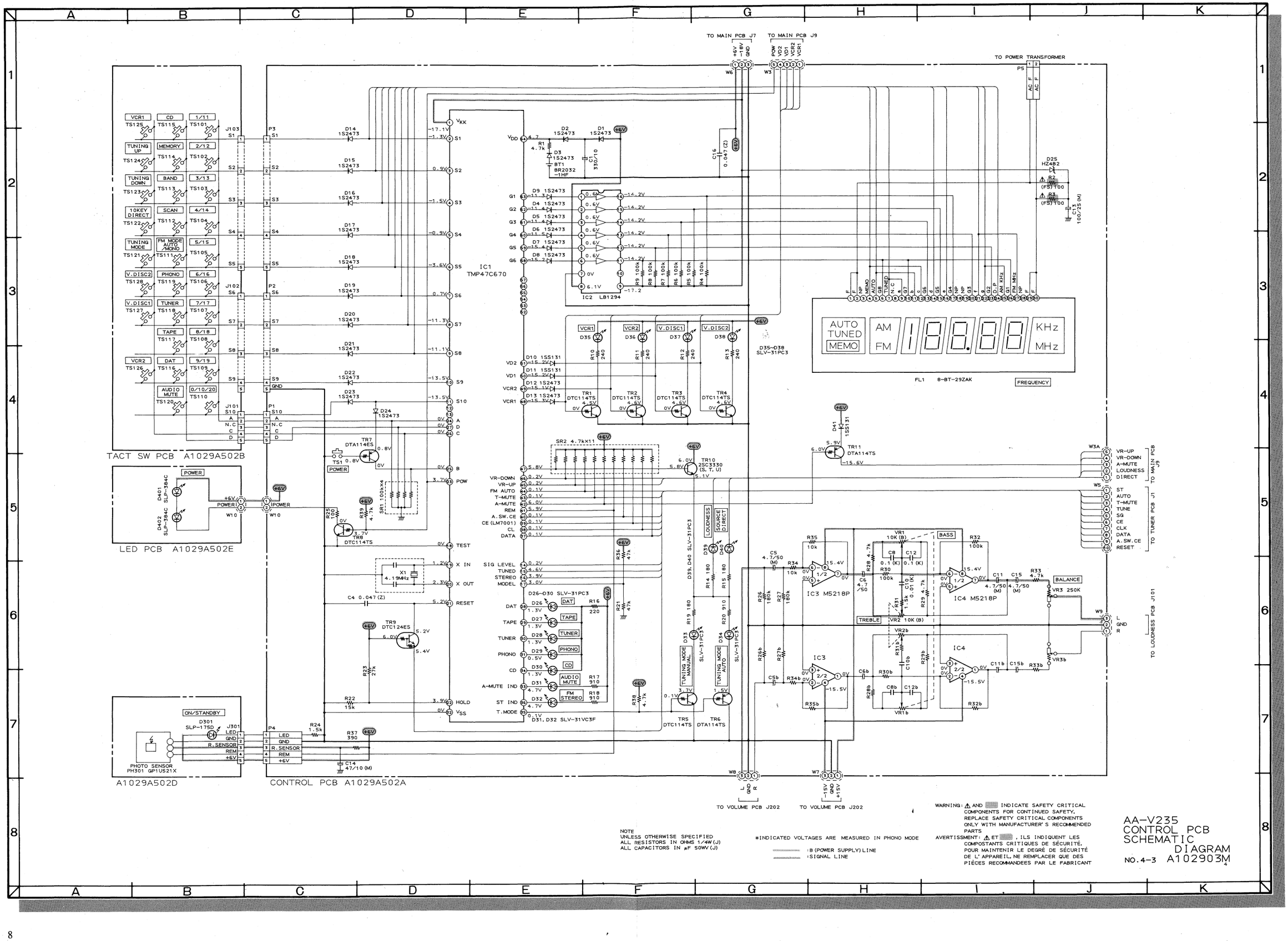
MAIN PCB A1029A501A

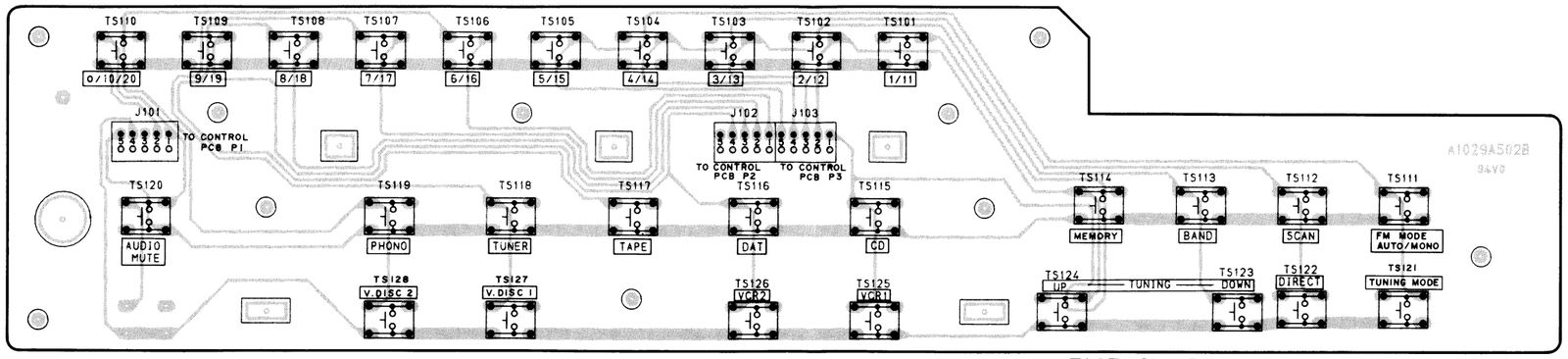
WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

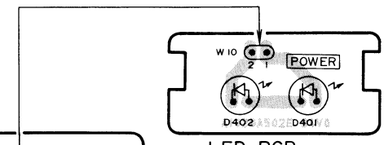
TO POWER SUPPLY PCB J501

TO POWER SUPPLY PCB J502

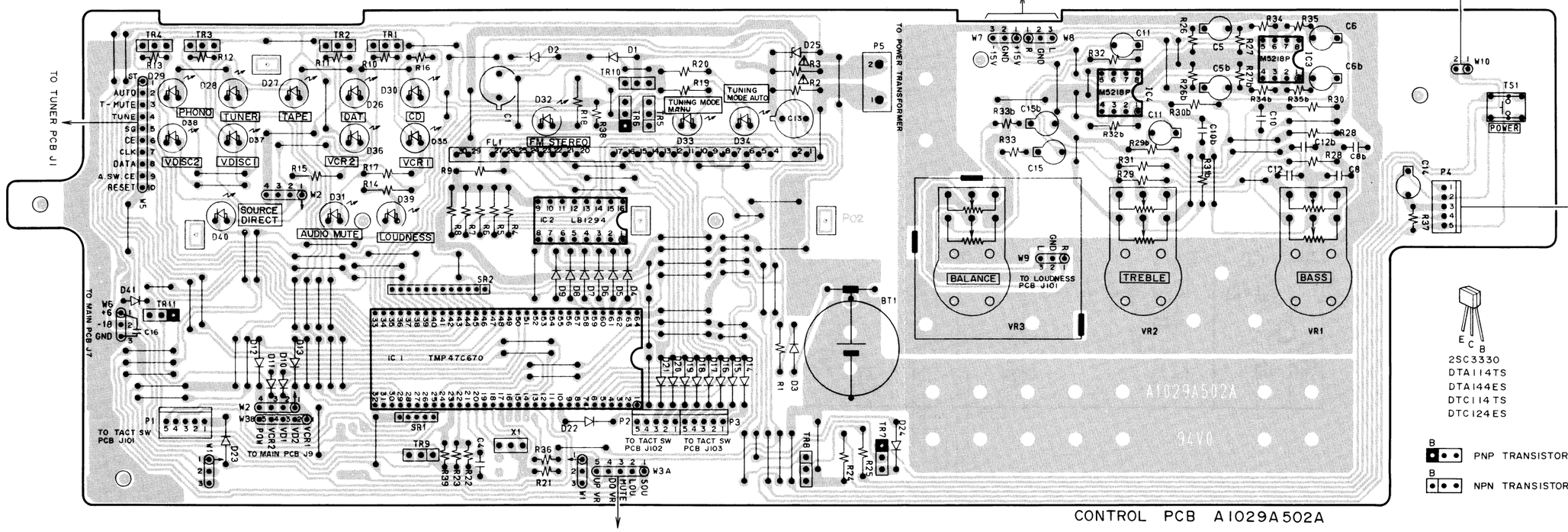

TACT SW PCB A1029A502B
LED PCB A1029A502E
A1029A502D
CONTROL PCB A1029A502A
IC1 TMP47C670
IC2 LB1294
IC3 M5218P
IC4 M5218P
FL1 8-BT-29ZAK
FREQUENCY
AUTO TUNED MEMO
AM FM
KHz MHz
TO MAIN PCB J7
TO MAIN PCB J9
TO POWER TRANSFORMER
TO VOLUME PCB J202
TO VOLUME PCB J202
TO MAIN PCB J9
TO TUNER PCB J1
TO LOUDNESS PCB J101
VCR1
CD
1/11
TUNING UP
MEMORY
2/12
TUNING DOWN
BAND
3/13
10KEY DIRECT
SCAN
4/14
TUNING MODE
FM MODE AUTO /MONO
5/15
V.DISC2
PHONO
6/16
V.DISC1
TUNER
7/17
TAPE
8/18
VCR2
DAT
9/19
AUDIO MUTE
0/10/20
POWER
ON/STANDBY
PHOTO SENSOR PH301 GP1U521X
D301 SLP-175D
D401 SLP-384C
D402 SLP-384C
D35-D38 SLV-31PC3
D26-D30 SLV-31PC3
D31, D32 SLV-31VC3F
BT1 BR2032 -1HF
X1 4.19MHz
SR1 100kx4
SR2 4.7kx11
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μF 50WV (J)
*INDICATED VOLTAGES ARE MEASURED IN PHONO MODE
: B (POWER SUPPLY) LINE
: SIGNAL LINE
WARNING: ⚠ AND ▒▒ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS
AVERTISSMENT: ⚠ ET ▒▒ , ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ, POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L' APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT
AA-V235
CONTROL PCB
SCHEMATIC
DIAGRAM
NO.4-3 A102903M



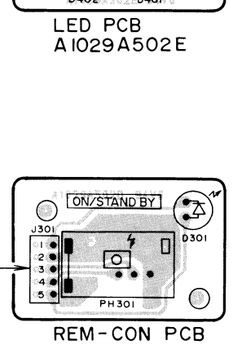
TACT SW PCB A1029A502B



LED PCB
A1029A502E



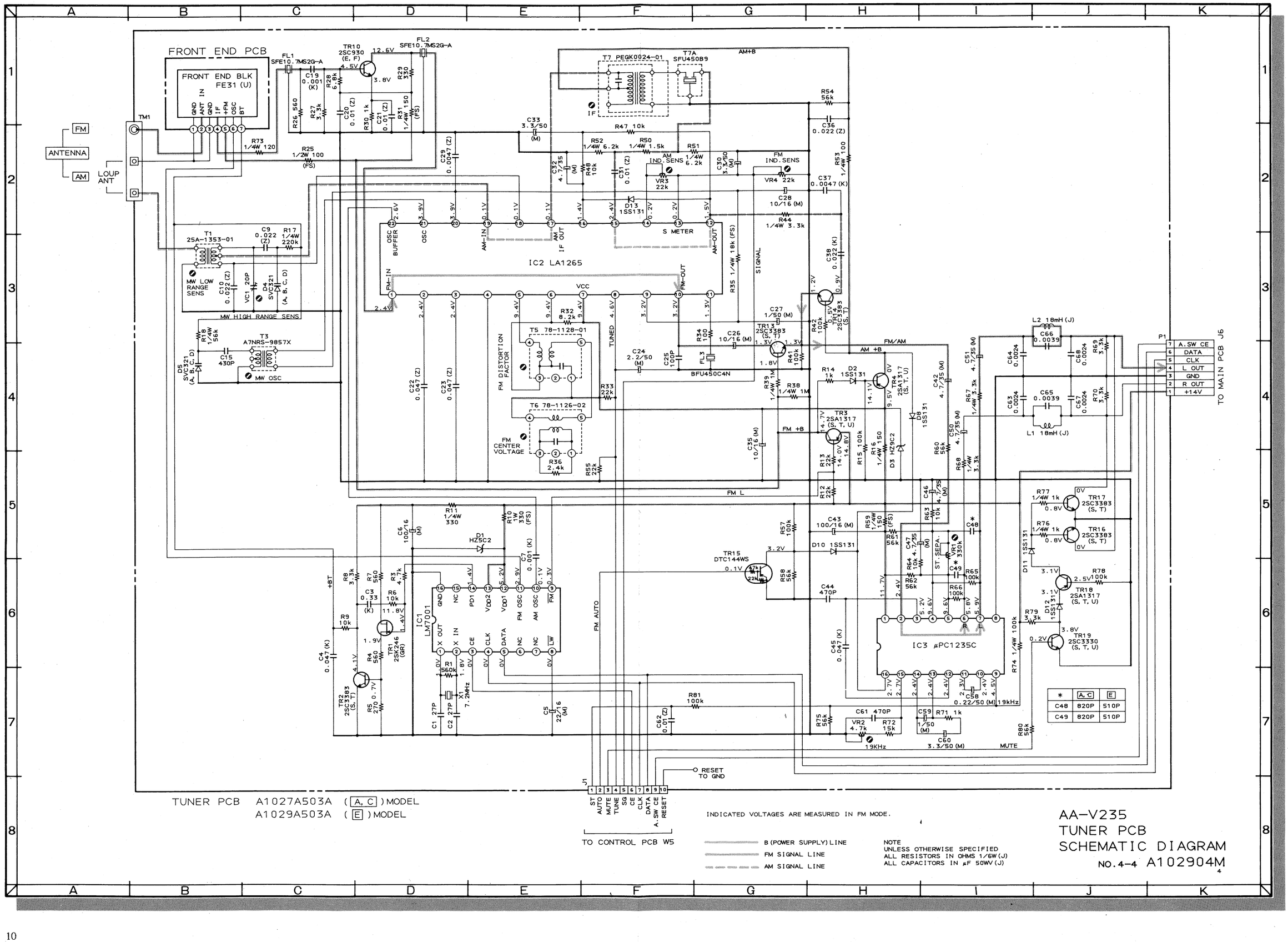
CONTROL PCB A1029A502A

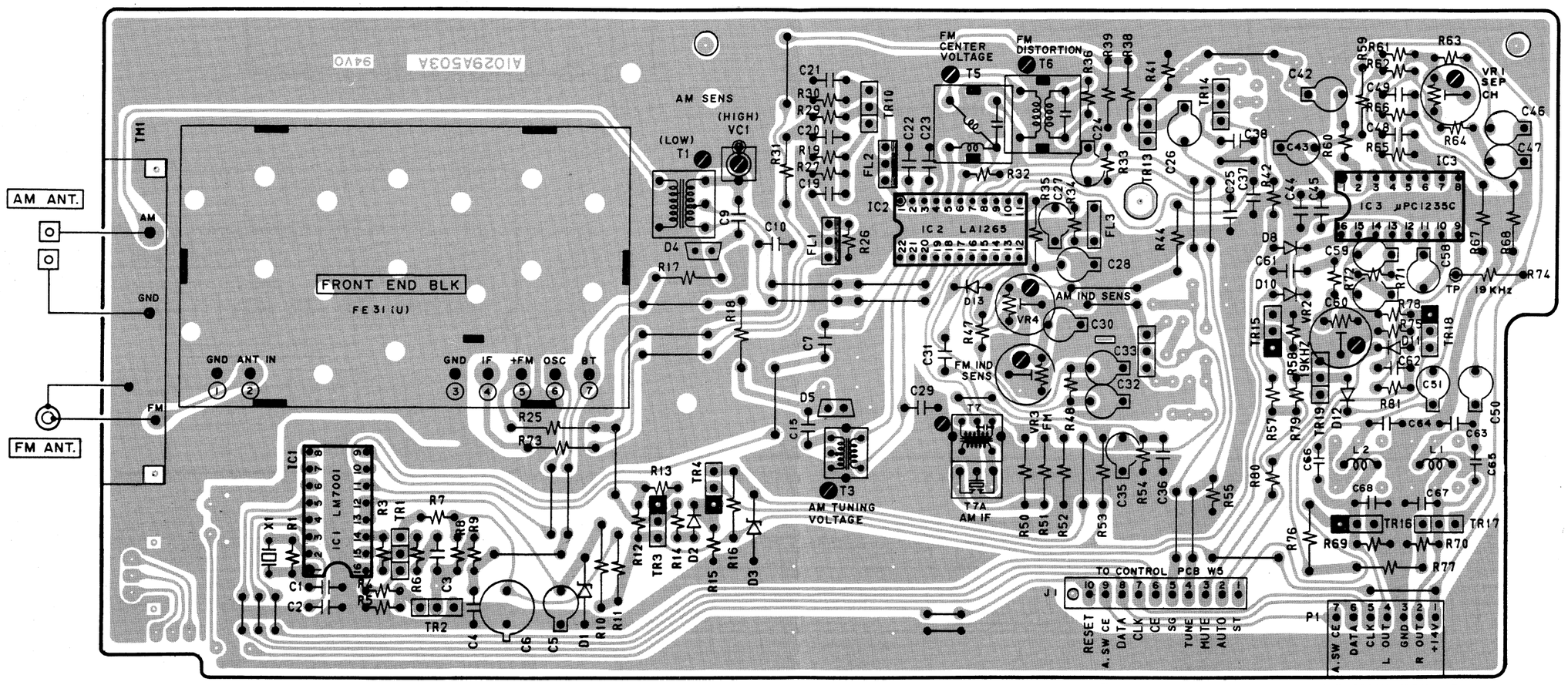


REM-CON PCB
A1029A502D

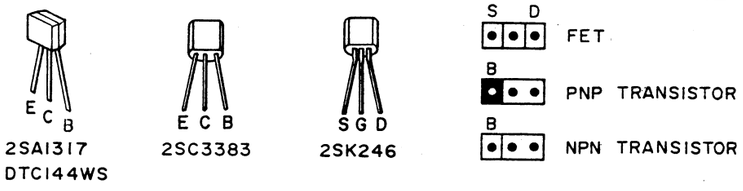
WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

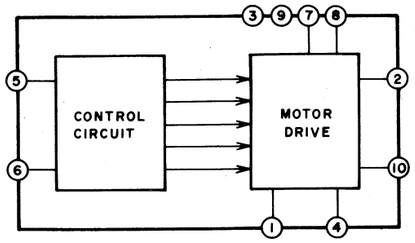

FRONT END PCB
FRONT END BLK FE31 (U)
GND ANT GND IF +FM OSC BT
TM1
FM
ANTENNA
AM
LOUP ANT
FL1 SFE10.7MS2G-A
FL2 SFE10.7MS2G-A
TR10 2SC930 (E, F)
12.6V
4.5V
3.8V
R73 1/4W 120
R25 1/2W 100 (FS)
R26 560
R27 3.3k
R28 6.8k
R29 330
R30 1k
R31 1/4W 150 (FS)
C19 0.001 (K)
C20 0.01 (Z)
C21 0.01 (Z)
T1 25A-1353-01
C9 0.022 (Z)
R17 1/4W 220k
MW LOW RANGE SENS
C10 0.022 (Z)
VC1 20P
D4 SV321 (A, B, C, D)
MW HIGH RANGE SENS
T3 A7NRS-9857X
R18 1/4W 56k
C15 430P
MW OSC
D5 SV321 (A, B, C, D)
C33 3.3/50 (M)
R47 10k
R52 1/4W 6.2k
R50 1/4W 1.5k
R51 1/4W 6.2k
C32 4.7/35 (M)
R48 10k
C31 0.01 (Z)
AM IND. SENS
VR3 22k
C30 3.3/50 (M)
FM IND. SENS
VR4 22k
C29 0.0047 (Z)
T7 PEGK0024-01
T7A SFU450B9
AM+B
IF
R54 56k
C36 0.022 (Z)
R53 1/4W 100
C37 0.0047 (K)
C28 10/16 (M)
R44 1/4W 3.3k
D13 1SS131
S METER
IC2 LA1265
OSC BUFFER
OSC
AM-IN
AM IF OUT
AM-OUT
FM-IN
FM-OUT
VCC
SIGNAL
R35 1/4W 18k (FS)
C38 0.022 (K)
C27 1/50 (M)
TR13 2SC3383 (S, T)
TR14 2SC3383 (S, T)
C26 10/16 (M)
R34 100
C24 2.2/50 (M)
C25 100P
FL3
BFU450C4N
R42 100k
R41 100k
R39 1/4W 1M
R38 1/4W 1M
R33 22k
R32 8.2k
T5 78-1128-01
FM DISTORTION FACTOR
T6 78-1126-02
FM CENTER VOLTAGE
R36 2.4k
R55 22k
C22 0.047 (Z)
C23 0.047 (Z)
TUNED
FM/AM
AM +B
FM +B
FM L
R14 1k
D2 1SS131
TR4 2SA1317 (S, T, U)
D8 1SS131
TR3 2SA1317 (S, T, U)
D3 HZ9C2
R13 22k
R12 22k
R16 1/4W 150
R15 100k
C35 10/16 (M)
C42 4.7/35 (M)
C50 4.7/35 (M)
C51 4.7/35 (M)
R60 56k
R67 1/4W 3.3k
R68 1/4W 3.3k
C46 4.7/35 (M)
L2 18mH (J)
C66 0.0039
C64 0.0024
C68 0.0024
R69 3.3k
C63 0.0024
C65 0.0039
C67 0.0024
R70 3.3k
L1 18mH (J)
P1
7 A.SW CE
6 DATA
5 CLK
4 L OUT
3 GND
2 R OUT
1 +14V
TO MAIN PCB J6
R11 1/4W 330
R10 1W 330 (FS)
C6 100/16 (M)
D1 HZ5C2
C7 0.001 (K)
+BT
R8 3.3k
R7 560
R3 4.7k
C3 0.33 (K)
R6 10k
R9 10k
C4 0.047 (K)
TR1 2SC946 (GR)
R4 560
TR2 2SC3383 (S, T)
R5 270
IC1 LM7001
GND NC PD1 VDD2 VDD1 FM OSC AM OSC FM
X OUT X IN CE CLK DATA NC NC LW
R1 560k
X1 7.2MHz
C1 27P
C2 27P
C5 22/16 (M)
R81 100k
C62 0.01 (Z)
FM AUTO
TR15 DTC144WS
R57 100k
R58 56k
D10 1SS131
C43 100/16 (M)
R59 1/4W 150 (FS)
R61 56k
C47 4.7/35 (M)
R63 10k
R64 10k
R62 56k
ST. SEPA.
VR1 330k
C48 *
C49 *
R65 100k
R66 100k
C44 470P
C45 0.047 (K)
IC3 μPC1235C
R
C58 0.22/50 (M)
19kHz
C61 470P
VR2 4.7k
R72 15k
C59 1/50 (M)
R71 1k
C60 3.3/50 (M)
MUTE
R75 56k
R80 56k
R77 1/4W 1k
TR17 2SC3383 (S, T)
R76 1/4W 1k
TR16 2SC3383 (S, T)
D11 1SS131
R78 100k
TR18 2SA1317 (S, T, U)
D12 1SS131
R79 3.3k
R74 1/4W 100k
TR19 2SC3330 (S, T, U)
* A, C E
C48 820P 510P
C49 820P 510P
RESET TO GND
J1
ST AUTO MUTE TUNE SG CE CLK DATA A.SW CE RESET
TO CONTROL PCB W5
TUNER PCB A1027A503A (A, C) MODEL
A1029A503A (E) MODEL
INDICATED VOLTAGES ARE MEASURED IN FM MODE.
B (POWER SUPPLY) LINE
FM SIGNAL LINE
AM SIGNAL LINE
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W (J)
ALL CAPACITORS IN μF 50WV (J)
AA-V235
TUNER PCB
SCHEMATIC DIAGRAM
NO.4-4 A102904M



TUNER PCB A1027A503A (A,C MODEL)
A1029A503A (E MODEL)

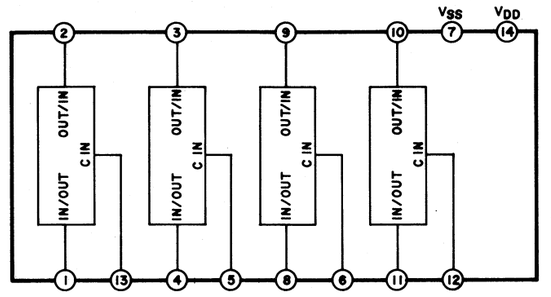


BA6229 (REVERSIBLE MOTOR DRIVER)



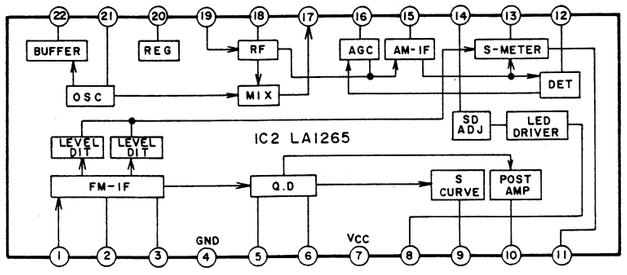
INPUT		OUTPUT		MODE
⑤	⑥	②	⑩	
H	H	L	L	BRAKE
L	H	L	H	CASSETTE & TAPE LOADING
H	L	H	L	CASSETTE & TAPE UNLOADING
L	L	OPEN	OPEN	STOP

M4066 (ANALOGUE SWITCH)

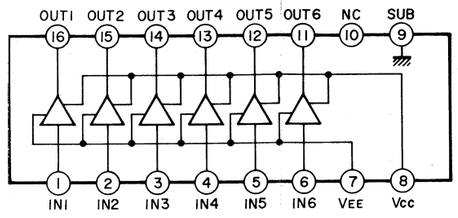


C IN	IMPEDANCE BETWEEN IN/OUT – OUT/IN
H	0.5 to 5×10^2 OHMS
L	MORE THAN 10^9 OHMS

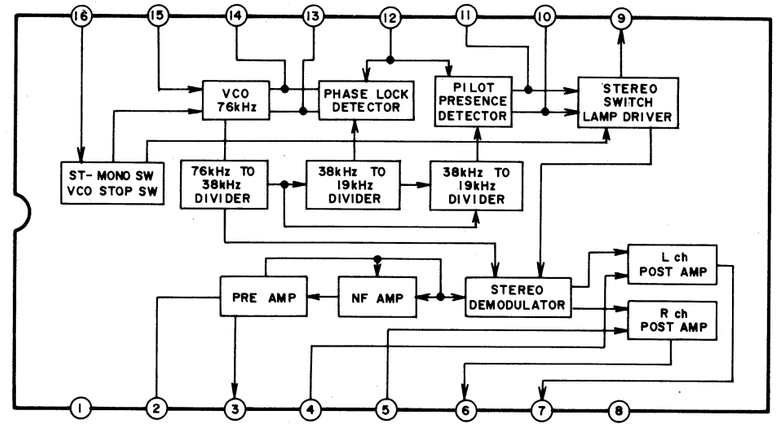
LA1265 (AM FM DEMODULATOR)



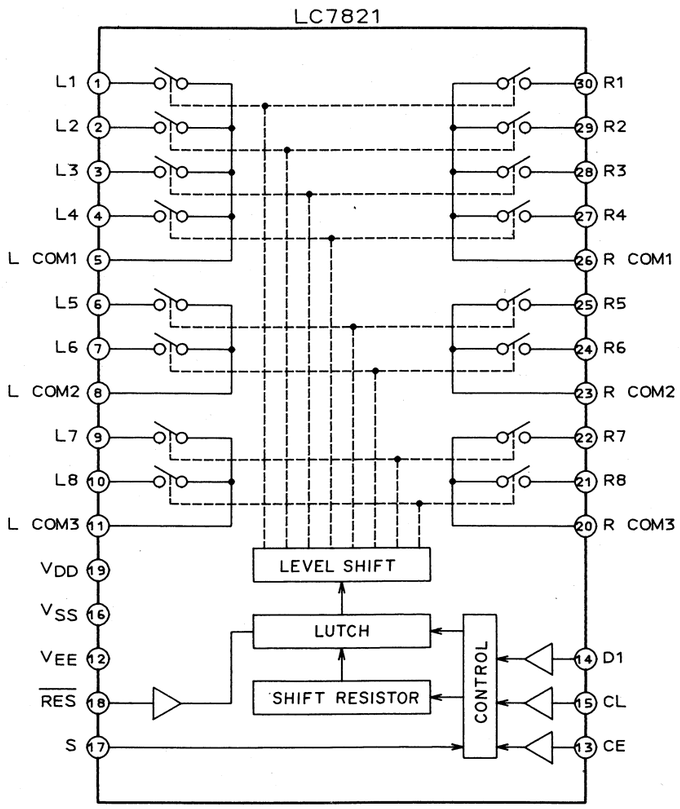
LB1294 (HEX DRIVER)



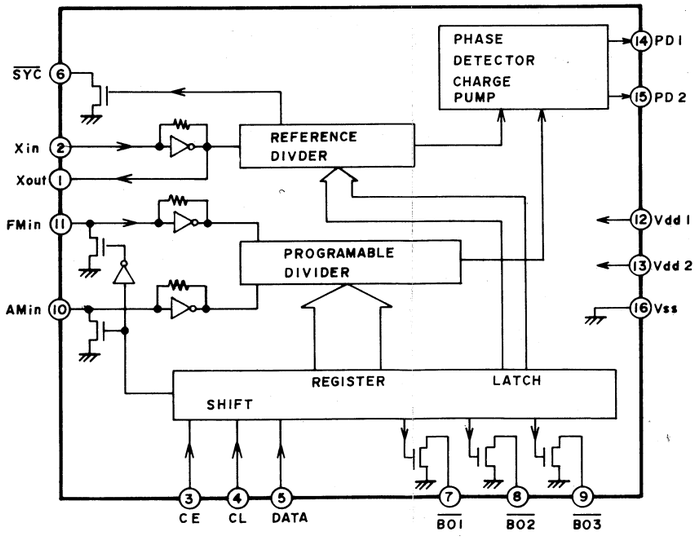
μPC1235C (STEREO MPX)



LC7821 (ANALOGUE FUNCTION SWITCH)



LM7001 (PLL SYNTHESIZER)



μPC1237H (STEREO POWER AMP. PROTECTOR)